CALIFORNIA AND WESTERN MEDICINE

OFFICIAL JOURNAL OF THE CALIFORNIA MEDICAL ASSOCIATION

VOL. 55 JULY, 1941 NO. 1

California and Western Medicine

Owned and Published by the

CALIFORNIA MEDICAL ASSOCIATION

Four Fifty Sutter, Room 2004, San Francisco, Phone DOuglas 0062

Address editorial communications to Dr. George H. Kress as per address above. Address business and advertising communications to John Hunton.

EDITOR . . . . . GEORGE H. KRESS

Committee on Publications

Francis E. Toomey.....San Diego 1942
G. W. Walker.....Fresno 1943
A. A. Alexander, Chairman.....Oakland 1944
Secretary-Editor, ex officio

Editorial Board

Roster of Editorial Board appears in this issue on page 40.

Advertisements.—The Journal is published on the seventh of the month. Advertising copy must be received not later than the fifteenth of the month preceding issue. Advertising rates will be sent on request.

BUSINESS MANAGER . . . . . JOHN HUNTON

Advertising Representative for Northern California
L. J. FLYNN, 544 Market Street, San Francisco (DOuglas 0577)

Subscription prices, $5 ($6 for foreign countries); single copies, 50 cents.

Volumes begin with the first of January and the first of July. Subscriptions may commence at any time.

Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

DEPARTMENT INDEX

(Itemized Index of Articles is printed on Front Cover)

EDITORIALS†

COUNTY FAIRS AND THEIR VALUE IN PUBLIC HEALTH EDUCATION: EXPERIENCE OF TEHAMA COUNTY

California's County Fairs.—During this year, 1941, more than fifty county fairs will be opened in the State of California. The place which they hold in the minds and hearts of citizens may best be appreciated by the large number of citizens who visit them, a fact much in evidence during the last decade. Last year, the State Fair—always an outstanding feature of Sacramento—recorded more than 500,000 visitors; and the Los Angeles County Fair, held at Pomona, was credited with an attendance of more than 600,000 persons! In lesser degree, but equally significant, are the attendance figures of the other county fairs.

* * *

Receptive Attitude of Citizens Who Go to Fairs.—It is true that citizens attend fairs for a large number of reasons, as is promptly understood when the diversity of exhibits and entertainment on display are taken into consideration. Nevertheless, even though many go for entertainment, rather than in a primary quest for serious knowledge or factual data, it cannot be denied that, these citizens, having the leisurely mental outlook inspired by a holiday, in the majority of cases, are susceptible to almost any kind of educational attack, provided the approach be made alluring.

* * *

An Excellent Field for Public Health Education.—To make the above applicable in the promotion of public health education, it would seem that organized and scientific medicine need only devise exhibits and entertainment in such form, and under such conditions and auspices, as would be attractive to audiences, brought there through other influences, and who are in mood to be shown.

By contrast, as regards efforts necessary to attract large and changing groups under a nonpublic sponsorship, it is only necessary to consider the trials and tribulations of those who have tried to put over privately sponsored public health or other exhibits and programs.

For the information of members, a list of the county fairs that will be held this year in California is given in this issue. (See page 46.)

† Editorials on subjects of scientific and editorial interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

C. M. A. Committee on Public Health Education Is Coöperating.—Reports in this year's *Pre-Convention Bulletin* pointed out the value of county fairs as vehicles through which public health education could be carried on; the suggestion receiving favorable consideration by the Reference Committee at Del Monte. The recommendation was also considered by the Committee on Public Health Education, that body earmarking an appropriation for transportation costs of exhibits, films and other accessories. The work, therefore, may be said to be under way in California. All that is now needed is the further coöperation of the various county medical societies. For its inspirational value, the story of the recent Tehama County Fair, held at Red Bluff, is here outlined.

* * *

Tehama County Pioneers With a County Fair Exhibit.—It is gratifying to report that to the smallest component society in the California Medical Association (Tehama Society has only ten members) falls the honor of not only being probably the first to present a Public Health Exhibit at a county fair, but also to have demonstrated that this line of education can be carried through in most successful manner.

* * *

The Tehama County Society Experience.—The Tehama County Fair was scheduled to be held June 12-14 (for three days, Friday to Saturday, inclusive). During a visit to San Francisco by Dr. R. G. Frey, president of the Tehama County Medical Society, the suggestion was made by the Association Secretary that the Tehama County Medical Society might perform a real service if it would sponsor a Public Health Exhibit at the county fair then scheduled to begin in a few weeks. Correspondence ensued, and the following results may now be chronicled:

Doctor Frey, without cost, secured an allocation of space in the Fair building from the board of supervisors;

Persuaded a lumber firm to supply material and construct a film booth;

Another citizen to donate the use of chairs;

A large corporation to lend the use of its film projecting apparatus, and the services of an employee on each afternoon and evening to operate the lantern;

Also to have one of the hospitals place a nurse in attendance at the exhibit booths (California Medical Association Golden Gate Cancer exhibit plus two American Medical Association exhibits), and so on.

When the loud speaker announced that the films were about to be shown (three public health strips), people could be seen leaving the stock pavilions for the exhibit building (almost a quarter of a mile distant!). Audiences showed real interest.

The value of the favorable press notices in the local newspapers is hard to estimate.*

As an immediate aftermath, film portrayals were given before a goodly audience of a fraternal order, and requests were received from three service and and other clubs.

The expense to the county society? Probably not more than ten to fifteen dollars!

Contemplate, for a moment, the returns in community good-will for that small amount of money by the county society (the California Medical Association paying transportation charges on shipments of exhibit and other material).

The moral? What Tehama County Medical Society has been able to accomplish should be possible of duplication by other component county units.

Why not urge officers of your own county unit to appoint a County Fair Public Health Committee, its chairman to communicate with the Association Secretary, in line with letters already sent to each county society? Why wait until next year? Today is the time to begin!

* See news item on page 45.

ANNUAL SESSIONS: A. M. A. AND C. M. A.

Important Actions by A. M. A. House of Delegates.—The annual sessions of the American and California Medical associations usually convene within two or three weeks of one another, the constituent state unit for California setting its convention days so as to have at least a two weeks' interval, in order that California Medical Association members, who wish to attend the national organization meetings, may have a better opportunity to arrange convenient travel schedules. At the recent Cleveland session of the American Medical Association, California was listed as having a total of 204 registrants, a very creditable showing when distance and time necessary for travel are taken into consideration. At the Cleveland session of the American Medical Association, business of considerable importance was transacted as may be noted:

Medical Preparedness.—Naturally, matters related to medical preparedness received special attention, and the reports concerning the manner in which the American Medical Association—acting not only for itself, but also for its constituent state associations and their component county units—has been of real aid to the military services, were most illuminating. Certainly, the citizens of the United States have reason to be grateful for the important services that have been and are being rendered by the physicians in every state of the Union, both in their individual and collective relationships, and for both Selective Service and active military work.

Deferments of Medical Students.—It is heartening to know that the problem of deferments for medical students and interns is being solved in quite satisfactory fashion, and that no serious damage will be done to the existing system of medical education and training, the standards of which must be maintained if adequate service is to be made available at all times for citizens in both military and civilian rôles.

Medical Services by Hospitalization Organizations.—A resolution was presented by the California Medical Association, through its Council, designed to instruct the American Medical Asso-

ciation Board of Trustees to appoint a committee of the American Medical Association to confer with similar committees of the national hospital organizations. Action of the American Medical Association House of Delegates:

The proposal to have the conjoint committees to study and submit reports to their respective national bodies in which would be outlined platforms or principles designed to clarify the relation of medical services that may be offered in prepayment hospitalization and similar plans, the same to be in line with the basic principles laid down in the past by the House of Delegates and other authorities of the American Medical Association, was approved by your reference committee, which recommends its adoption.*

Indictment and Trial of American Medical Association.—Equally interesting was the action taken on the Report of the Board of Trustees, considered in executive session, and dealing with the indictment and trial of the American Medical Association, et al. It was stated therein:

The Board of Trustees recommends to the House of Delegates that counsel for the American Medical Association be requested and directed to appeal the judgment based on the verdict of guilty against the American Medical Association in the case of *United States* vs. *American Medical Association et al.*, District Court of the United States for the District of Columbia, No. 63221.

Action taken was

that the House of Delegates heartily approve and commend this report of the Board of Trustees, and the motion was duly seconded.

Dr. T. K. Gruber, Michigan, moved that Doctor Taylor's motion be amended by adding to it the statement that the Board of Trustees be instructed by the House of Delegates to direct counsel for the American Medical Association to appeal the judgment, based on the verdict of guilty, against the American Medical Association in the case of *United States vs. American Medical Association, et al.*, District Court of the United States for the District of Columbia, No. 63221, and the amendment was accepted by Doctor Taylor and his second.

After discussion, Doctor Taylor's *motion as amended was carried by a rising vote, there being not one dissenting vote.*

* * *

Actions Taken by C. M. A. House of Delegates.—The minutes of the C. M. A. House of Delegates appeared on pages 310-342 of the June issue of CALIFORNIA AND WESTERN MEDICINE. Members of the California Medical Association who scanned or read the record of the proceedings at Del Monte are able, therefore, to visualize the many important problems confronting the medical profession in California, and also the manner in which the Reference Committees and the members of the House sought to clarify the issues involved. The reports of the three reference committees should be read by all members and the June issue may well be laid aside for such a purpose. If actions taken at Del Monte are not in accord with local outlooks or needs, members should feel free to bring such items up for further discussion in meetings of their respective county societies. If that is done, it should be possible to secure unified and generous support on pertinent issues. Mention is here made of some of the special matters considered at Del Monte:

State Association Dues of Members in Active Military Service.—Dues of members in active military service will be paid by the California Medical Association, as loans, pending action on an amendment to the Constitution to be considered at next year's annual session (June CALIFORNIA AND WESTERN MEDICINE, pages 328 and 315).

Dues of New Members.—Dues of physicians elected to membership on or after July 1 of a calendar year, will hereafter be one-half the annual dues of that year.

Fund Established for Needy Members.—The House of Delegates instructed the Council "to transfer from the general funds of the Association to this special fund for aid to needy members a sum equal to $1 per each and every active member of the Association."

Coördinating Committees for California Physicians' Service.—The House directed the Council to promote the appointment of "Coördinating Committees" by county medical societies, to coöperate with California Physicians' Service, as explained in a substitute resolution of Reference Committee No. 3 (June CALIFORNIA AND WESTERN MEDICINE, page 333).

Medical Services Rendered Through Hospitalization Organizations.—Resolution No. 14 (June CALIFORNIA AND WESTERN MEDICINE, page 341), dealing with medical services afforded by hospitalization organizations gave certain instructions to the Council. The Council, through a special committee, after conference with interested groups, requested the California Medical Association delegates to the American Medical Association to submit a resolution that had been drafted by the special committee, providing for a clarification of the issues involved, through possible conjoint action by the national medical and hospital organizations (see *Journal of the American Medical Association*, June 14, 1941, page 2700; and June 21, 1941, page 2785).

Promotion of National Physicians' Service.—By unanimous consent of the members of the California Medical Association House of Delegates, the component county societies are urged to further the work of the National Physicians' Committee for the Extension of Medical Services (June CALIFORNIA AND WESTERN MEDICINE, page 341).

Public Health Education Through State and County Fairs.—Public Health Education, through utilization of the facilities of state and county fairs —fields of service hitherto not used in California— was approved by the House, and the California Medical Association Committee on Public Health Education, in line therewith, has earmarked a fund to begin this work.

History of the California Medical Association.—The long neglected collection of historical data (it is a sad fact that the California Medical Association is woefully lacking in historical memorabilia), was taken out of the "filing alcoves of forgotten things" and given approval (June CALIFORNIA AND WESTERN MEDICINE, page 325).

The above (and these are only a few of the matters considered at Del Monte), are referred to because of their special importance.

In due course, the attention of component county societies and members will be called to other items.

* See J. A. M. A., June 21, 1941, page 2792.

ON VARIOUS TOPICS

California State Legislature.—On June 16, the fifty-fourth biennial session of the California Legislature adjourned. There is little new to add to the information already given in CALIFORNIA AND WESTERN MEDICINE (May issue, on page 285, and for June, on page 345). While several measures designed to promote public health activities went down to defeat, the end results, in so far as organized and scientific medicine are concerned, were as good as could have been expected.

* * *

Congress.—The Senate and House of Representatives, at Washington, still in session owing to existing emergencies, has not recently enacted laws inimical to the standards of medical and public health practice, although many such measures have been introduced. It is doubtful whether proposed statutes, modeled after the Wagner Health Insurance Act, will be vigorously pushed during the present session.

* * *

Osteopathic Interns for the Army.—In the California Medical Association Department of Public Policy and Legislation, appears a memorandum concerning efforts to make it possible to employ osteopathic interns in the medical department of the United States Army.*

The matter of osteopathic interns is of considerable importance, for several reasons:

Sectarian schools of the healing art do not maintain standards of preliminary education and of professional training that measure up to those demanded for nonsectarian schools by the Association of American Medical Colleges and Council on Medical Education of the American Medical Association; and

Officers in the medical corps of the United States Army must have graduation credentials from an accredited medical school. They would be handicapped in their work if they were obliged to rely on interns whose concepts of disease and injury were at variance with their own.

Not to be forgotten, also, is what experience has taught: that lowering of standards and appointment of such persons nearly always pave the way for further inroads by such groups.

California Medical Association members who care for additional information in these matters should consult their county society secretaries.

* * *

C. M. A. Annual Session of 1942.—The Council of the California Medical Association is not in position to designate the dates of the next annual session, until the Trustees of the American Medical Association decide the time of meeting of the national organization. Unless a conflict arises, the Council will probably adhere to its custom, and choose the first week of May as the time of gathering for the 1942 annual session.

Members of the Association who contemplate reports on studies should write at an early day to the Secretary of the Scientific Section, before which the paper or address would be given. The roster of Section Officers appears in each issue, on advertising page 6.

The scientific exhibits of the national and state medical associations grow in interest and number with each year. In the June issue, on page 346, was given the list of prize winners at the recent Del Monte session. The Committee on Scientific Work urges all who are in position to present scientific exhibits to begin their preparation at an early date. Correspondence regarding such exhibits should be addressed to the Association Secretary, who is the chairman of the Committee on Scientific Work.

* * *

Antivivisection Propaganda.—During the last several weeks, what seems to be a well-defined effort in antivivisection propaganda has been much in evidence in a well-known string of newspapers, the articles being played up on first pages, in boldface type and with full-page illustrations of supposed examples of cruelties done to lower animals.

Seemingly, little can be done in the premises, since the views of the publisher in question are well known, and it follows that his representatives on the different newspapers take their instructions from him.

It is to be regretted that misinformation, concerning animal experimentation and its value in the prolongation of health and life for both human beings and the lower animals, should be so widely broadcast. The suggestion has been made that the present effort may be part of a plan designed to influence congressmen concerning several pending measures that would be applicable to the District of Columbia, whereby animal experimentation in that national domain, no matter how well and properly safeguarded, would practically be prevented.

Propaganda campaigns of this kind, through which the interests of scientific medicine and the public health are jeopardized, only emphasize the need and value of sound public health education through other channels than that to be had by purchase of expensive newspaper advertising space. Such a medium is at hand in the state and county fairs of California, concerning which editorial comment is elsewhere made in this issue. With the coöperation of county societies and their members, this method of education could be developed in such wise as to neutralize, in large measure, the dogmatic and misleading statements of some of the sponsors of so-called antivivisection propaganda.

CHANGES IN OFFICIAL JOURNAL'S FORMAT: EDITORIAL BOARD

Changes Conserve Space and Money.—CALIFORNIA AND WESTERN MEDICINE this month changes its format slightly. The difference is intended as a convenience to the reader and an economy to the publisher. Type pages remain the same size as before, but margins have been trimmed a bit. Editorial features are included in this issue in the same form as in the past. Advertising pages

* Members who wish to write to the United States Senators and Representatives from California will find the names of the Congressmen on page 285 of the May issue. See also informative item on page 44.

have been somewhat rearranged, with nothing omitted, in order to accomplish an economy of space; the additional pages thus made available will be used for the publication of additional scientific material.

Together with a change in binding made several months ago and a change in paper stock made last month, the new format of this issue brings into complete being a program of publication economy long discussed and recently agreed upon by the Council of the Association. It is hoped that this program will make the pages of CALIFORNIA AND WESTERN MEDICINE even more valuable to its readers than in the past, and at the same time will accomplish monetary economies that will be reflected in the Association's financial statements.

* * *

Editorial Board for "California and Western Medicine."—At Del Monte, the Council appointed an Editorial Board to whose members will be referred annual session manuscripts. The executive committee of the Board will coöperate with the Editor and Committee on Publications. (See June issue, on page 351.) The representatives of the specialty groups who are members of the Editorial Board are as follows:

Chairman of the Board:
George D. Barnett

Executive Committee:
Sumner Everingham, Oakland, Chairman.
Mast Wolfson, Monterey.
Albert J. Scholl, Los Angeles.
George W. Walker, Fresno.
Chauncey D. Leake, San Francisco.

Anesthesiology:
Charles F. McCuskey, Glendale.
H. R. Hathaway, San Francisco.

Dermatology and Syphilology:
H. J. Templeton, Oakland.
William H. Goeckerman, Los Angeles.

Eye, Ear, Nose, and Throat:
Frederick C. Cordes, San Francisco.
L. G. Hunnicutt, Pasadena.
George W. Walker, Fresno.

General Medicine:
George D. Barnett, San Francisco.
George H. Houck, Los Angeles.
Mast Wolfson, Monterey.

General Surgery (including Orthopedics):
Frederick C. Bost, San Francisco.
Clarence J. Berne, Los Angeles.
Sumner Everingham, Oakland.

Industrial Medicine and Surgery:
Richard O. Schofield, Sacramento.
Delos Packard Thurber, Los Angeles.

Plastic Surgery:
George W. Pierce, San Francisco.
William S. Kiskadden, Los Angeles.

Neuropsychiatry:
John B. Doyle, Los Angeles.
Olga Bridgman, San Francisco.

Obstetrics and Gynecology:
Erle Henriksen, Los Angeles.
Daniel G. Morton, San Francisco.

Pediatrics:
William A. Reilly, San Francisco.
William W. Belford, San Diego.

Pathology and Bacteriology:
David A. Wood, San Francisco.
R. J. Pickard, San Diego.

Radiology:
R. R. Newell, San Francisco.
Henry J. Ullmann, Santa Barbara.

Urology:
Lewis Michelson, San Francisco.
Albert J. Scholl, Los Angeles.

Pharmacology:
Chauncey D. Leake, San Francisco.
Clinton H. Thienes, Los Angeles.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 37.

EDITORIAL COMMENT†

NEOPLASTIGENIC SENSITIVITY

The development of technical methods for the study of "latent neoplasms" or "subthreshold neoplastic states," is currently reported by Rous,[1] Kidd and MacKenzie,[2] of the Rockefeller Institute.

When a carcinogenic agent is applied to mammalian skin it nearly always elicits preliminary benign growths. These precancerous states have thus far received relatively little attention, due largely to the fact that in the mouse, the commonest experimental animal, the initial "warts" are prone to become malignant very soon. In rabbits, however, the initial neoplasms retain their benign character for long periods of time,[3] only a small percentage of them becoming malignant after months or years of repeated tarring. If the tarring is interrupted in the benign stage, the growths almost invariably dwindle and disappear, the skin being restored to apparently normal. About ten years ago, however, it was shown by des Ligneris[4] of South Africa, that this restoration is physiologically incomplete, the apparently normal skin remaining for many months hypersusceptible to tar. On reapplication of tar there is an explosive response, new warts often appearing within 10 days as contrasted with the 5 months tarring required in normal controls. This acquired neoplastigenic allergy or hypersusceptibility is described by Rous and his coworkers

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

1 Rous, P., and Kidd, J. G.: Jour. Exper. Med., 7:365 (Mar.), 1941.

2 MacKenzie, I., and Rous, P.: Jour. Exper. Med., 73:391 (Mar.), 1941.

3 Rous, P., and Kidd, J. G.: Jour. Exper. Med., 69:399, 1939.

4 des Ligneris, M. J. A., Annual Report of the South African Institute for Medical Research, 1930, 1.

as a "subthreshold neoplastic state," or heightened "neoplastic potentiality." In his hands carcino-hypersensitive skin will respond equally well to nonspecific irritants. Explosive wart formation, for example, follows the application of such non-carcinogenic agents as acetone or turpentine or as a result of local mechanical trauma or wound healing.

By repeatedly tarring of rabbit skin throughout a period less than that required to elicit macroscopical growths, the Rockefeller Institute oncologists showed that "many more cells are rendered potentially neoplastic than ever assert themselves in tumor formation under ordinary experimental conditions." After a rest period of six or more months, the treated skin may respond to local mechanical trauma (wound healing) by explosive neoplastic growths. This observation is in line with the popular belief that trauma may lead to local cancer. Demonstration that a previous carcinogenic sensitization is necessary for the development of such "traumatic cancers," however, is a new observation, which eventually may prove to be of basic clinical interest. The essential cause of the presumptive "traumatic cancer" may well have been a virus or other carcinogenic agent, which "may have done its work years before and the cells it rendered neoplastic [may have] remained ever since within their morphological context, incapable of asserting themselves until some intercurrent accident—a blow, a wound, a burn—stirs them to proliferation." The medicolegal bearing of this synergic theory is obvious.

P. O. Box 51.

W. H. Manwaring,
Stanford University.

SKIING INJURIES

During the past season of skiing in the Sugar Bowl area, near Norden, California, 153 persons received first-aid for accidental injuries sustained while skiing. This service was provided by members of the Sugar Bowl Ski Club, expert skiers who are trained in first-aid performance under the difficult conditions of snow-covered, mountainous terrain.

Of these 153 cases, there were thirty simple fractures of the tibia or fibula, or both bones together, and two fractures of fingers. Other serious injuries included three dislocations of the shoulder joint, and seventy-six sprains of the ankle or knee joint of varying degrees of severity. The remaining thirty-two cases suffered from cuts, puncture wounds, contusions and abrasions sufficiently painful to lead the victim to apply for treatment.

It is difficult to count accurately the skiers who are using the slopes of this region, but estimating their number from reports of the transportation services to and from the Sugar Bowl area, the incidence of injury is found to be about 1 per cent. This probably represents the highest accident rate of any American sport.

In spite of study by the National Park Service, various ski clubs, and other interested organizations, very little has been accomplished toward reducing the hazards of skiing. With the increasing popularity of this sport, a steady rise in the number of resulting injuries must be expected, and facilities provided minimizing their harmful results.

450 Sutter Street.

John Galgiani,
San Francisco.

PREVENTION OF FLAT FEET

The human foot is not a perfectly adapted structure. Evidence points to the fact that a pronated foot is more likely to give rise to pain on prolonged standing or walking than is a supinated foot. When mild varus (inversion) deformity gives rise to pain, it does so principally as the result of callus formation on the lateral aspect of the foot. It does not, however, cause severe aching pain that a reverse deformity of valgus (flat foot) of equal severity may cause. On weight bearing, the normal foot is constantly being thrust into a position of valgus or pronation.

Few will deny that the therapy of pronated feet is not satisfactory. This is evidenced by the multiplicity of methods of treating pes valgus. Many of the methods, indeed, are based on diametrically opposite principles. For instance, Blundell Bankhart believes the longitudinal arch of the foot in an individual with painful pes valgus should be flattened completely. Most authorities believe that every effort should be made to increase the height of the longitudinal arch by the use of arch supports or shoe corrections.

Can flat feet be prevented? Most prophylactic measures for pes valgus are performed on children from three to thirteen years of age. But is this not too late to start prevention? The Chinese, when they wished to reshape a foot into the type they considered beautiful, started binding the feet at an early age. We do not wait to correct an obvious club-foot (equino varus) until the child is three, but we prefer to start shortly after birth.

It seems to me that it would be desirable to strap all infants' feet with adhesive tape into a position of varus a few days after birth. The obstetrician and pediatrician could do this just as easily as they prescribe formulae for infant feeding. Strapping could be continued for a period of one month. The resultant atrophy of the leg musculature would be negligible. Another objection that might be raised to this procedure is that the new-born's foot is normally slightly inverted. However, this inversion disappears within one week after birth, leaving the infant's foot in valgus (flat foot) position.

By inauguration of such a program, we should at least be more prone to recognize and treat infants with obvious or mild valgus deformities at an earlier age. Our army, in later years, might then not be depleted by so many men complaining of "flat feet."

Station Hospital.

L. N. Cozen,
Fort Lewis, Washington.

ORIGINAL ARTICLES

PEYRONIE'S DISEASE OR FIBROUS CAVERNOSITIS: SOME OBSERVATIONS*

By E. W. BEACH, M. D.
Sacramento

DEFINITION.—Peyronie's disease, fibrous cavernositis or plastic induration of the penis, connotes an abnormal fibrous thickening or fibroma elaboration limited to the tissues over the dorsum of the penis. The septum or sheaths of the corpora cavernosa are involved with extension in an asymmetric manner into the tunica albuginea. The unique character and unequal distribution of this fibrous change ultimately makes for painful angulation or deformity in the erect penis, so that coitus is difficult or impossible.

Purpose of This Article.

This article has a very modest and simple objective. It seeks to focus the attention of the general practitioner (since all urologists have been initiated) upon that morbid entity captioned "fibrous cavernositis," to the end of a better understanding for the sufferer and his symptom complex. Contrary to custom in treating of fibrous cavernositis, this article shall attempt no diligent abstract of the exhaustive bibliography; it shall constitute no *vade mecum* nor syllabus of authoritative quotations; it shall venture no new descriptive synonym; it shall recount no unusual histological discovery; it shall compile no grad-grind table of statistics, and it shall undertake no blitzkrieg on the disease by reason of an infallible or personalized remedy. In fine, this paper expressly concerns itself with the more practical aspects of fibrous cavernositis, and hopes to foster thereby wider recognition of the malady and a more sympathetic treatment withal.

Need for Recognition of Fibrous Cavernositis.

The need for more universal recognition and fuller comprehension anent fibrous cavernositis is self-evident to any urologist of experience. Moreover, there exists currently an exiguity of scientific literature treating of the subject, save in highly specialized journals with a narrow circulation. Almost twenty years of urological observation, plus close professional rapprochement with a host of general practitioners during this interval, have sponsored certain tenets with regard to the malady. These might be tabulated somewhat as follows:

1. Perhaps no *obvious lesion* (leastwise not in the urological realm) constitutes a greater stumbling-block for the general practitioner, and certainly none is more often muffed by him. It is astounding the number of men who have never even heard of fibrous cavernositis. Others quite innocently inaugurate treatment for chordee, stricture, "enlarged lymph gland," dorsal thrombophlebitis, lymphangitis, or cancer. To substantiate this contention, a series of twelve referred cases will directly be examined, eleven of which were either erroneously diagnosed or not diagnosed at all. At the behest of accuracy and for comparative purposes, this series is arbitrarily limited to patients under observation and treatment for at least nine months. (Seven additional cases are not included because they failed to tarry the prerequisite time and with characteristic impetuousity did a "fade out"—never to return.)

2. Few diseases have a greater psychic complexion and in none is the mental anguish more genuine. Mindful of the basic nature of the sexual impulse and its relation to the personality ensemble, the effect of copulative frustration, either by reason of pain or physical distortion, or both, is an item of first magnitude. The corresponding reaction depends somewhat upon the age, temperament, and actual degree of contravention.

3. The victim is usually afflicted, likewise, with a wanderlust that thwarts prolonged observation and defeats rational treatment. With all the zeal of a Sir Galahad, he organizes a quest for cure. In vacillatory crescendo he "makes the rounds" and often ricochets into the charlatan's office. Time, money, and effort are vainly expended, so that eventually the patient becomes despondent, uncoöperative and disgruntled, or "sours" on the profession generally. Suicide may close the picture.

4. Since no form of therapy is currently entirely satisfactory (as attested by the number and diversity of remedial expedients), it still becomes necessary to invocate the art of practice as in the days of yore. The modern physician is long on science, but short on art.

To justify these tenets and to expedite the objective, it seems logical, first, to examine the clinical material and then to stress some of the highlights of this morbid entity.

FIBROUS CAVERNOSITIS

Synonyms.—This morbid entity was first described by that celebrated French surgeon, Franciscura de la Peyronie (1678-1747). The many contributors since his time have added but little to his original exposé, save an imposing array of formidable synonyms and fantastic etiological theories. A few of the commoner synonyms are, to wit: Peyronie's disease, Van Buren's disease, plastic induration of the penis, fibrosclerotic plaque, indurated plaque, enchondroma, fibrosclerosis, nodes, ganglia, plastic concretions, and fibrous tumor of the corpora cavernosa.

Occurrence.

Peyronie's disease is no respecter of persons, but attacks with equal facility men in all walks of life. The commonest age of visitation is from fifty to sixty, but not without some rivalry in the ensuing decade. Occasionally, much younger men are harassed similarly.

Judgment based solely upon reported cases (presently some 630) would seem to indicate the rarity of this malady. Conclusions of this sort

* Read before the Section on Urology at the sixty-ninth annual session of the California Medical Association, Coronado, May 6–9, 1940.

CLINICAL MATERIAL

INITIAL	AGE	COMPLAINT	DURATION (RELATIVE)	TYPE OF LESION	DIAGNOSIS (REFERRED)	GONORRHEA (PREVIOUSLY)	SYPHILIS (WASSERMANN)	TREATMENT	OBSERVATION PERIOD (RELATIVE)	RESULT
1 R.P.	54	Pain – bending to right side	18 months	Nodes – right and behind gland	Enlarged lymph gland	No	Yes	Antiluetic Operation	20 months	Improved 6 months scar recurred
2 L.S.	61	Pain – bending to right side	?	Nodes – midline and right corpora	Chordee	Yes	No	K I Operation	9 1/2 mos.	Improved
3 C.H.	53	Pain-bending to left side and upwards	3–4 years Progressive	Midline – left corpora and base	Lymphangitis	Yes	No	K I Operation	14 months	Improved initially scar recurred
4 Y.C.	57	Pain – bending upwards	3 years Progressive	Nodules at base and midline	Chordee	No	No	X-ray K. I.	2 years	Fair
5 M.H.	58	Pain-slight bending to left side	3 months	Midline – left side	Chordee	Yes	No	X-ray K. I	10 months	Improved
6 M.V.	63	Pain-some bending upwards	2 years Progressive	Midline and base	Stricture	Yes	No	X-ray K I	14 months	Slightly improved
7 J.H.	59	Pain – no angulation Flaccidity (Partial)	6 years Progressive	Midline and both sides equally	Dorsal thrombo-phlebitis	?	No	X-ray Au Na-thiosulfate	12 months	Improved
8 B.D.	55	Pain-slight bending to left side	3 months	Midline – left side	None	Yes	No	Radium element K. I.	9 months	Questionable
9 H.Z.	56	Slight pain little angulation	6 months	Midline	Chordee	Yes	Yes	Radium element Antiluetic	7 years	Definitely improved
10 W.L.	51	Pain – right angulation	10 months ?	Midline – right side	"Fibro-sclerosis"	?	Yes	Antiluetic Diathermy Au Na-thiosulfate	5 years	No change
11 W.W.	57	Pain – no angulation	3 years Progressive	Midline – symmetrical	Cancer ?	No	No	K I Diathermy Au Na-thiosulfate	18 months	Slightly improved
12 J.B.	53	Pain – right angulation	1 year	Midline – right corpora	?	Yes	No	K I Au Na-thiosulfate	16 months	Slightly improved ?

are likely erroneous, because most of the afflicted are seen by the general practitioner and seldom reported. Reticence or embarrassment (his manhood being challenged) may interdict consultation. Manifestations may be slight and punctuated by long periods of quiescence. Modest anatomic change, especially if attended by more equable or fairly uniform distribution, provokes little inconvenience. Homogeneous and adjacent or axisymmetric nodes facilitate counterpoise in the erect organ and thereby tend to offset or negate distortional influences. Moreover, since these symptoms are prone to occur in an era of shifted sexual values (elimination now holds the greater psychological interest) adequate compensatory adjustment may be forthcoming without medical advice.

Clinical Factors.

Symptoms are rather consonant to the degree, extent, and type of morbid deviation. Invariably, some shade of copulative difficulty brings the patient to the physician. Pain, which is experienced only when the phallus is turgid, may discourage or actually preclude coitus. The erect organ may bend upward (when maximum involvement is at the base) or be angulated to one side (always in the direction of the greatest pathologic change because of resultant segmental inelasticity) in such a manner as to hinder or technically prevent intromission. A combination of both pain and deformity may accrue with accent on either.

Examination of the penis discloses a palpable thickening limited usually to the dorsum. This thickening may be most conspicuous in the midline along the septum and advance in a linear manner over the sagittal plane of the phallus, only to spread laterally in an unequal fashion across the sheaths of the corpora. One, or a series of plaques or nodes, often bosselated in character, with distinct edges, either in the midline or sweeping laterally toward but not involving the caput or glans, are plainly felt. These nodes (which sometimes are hyperesthetic to touch, but more often

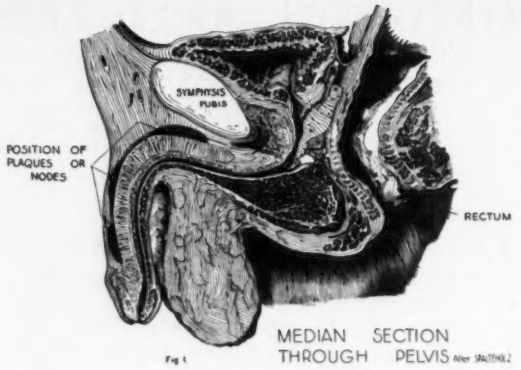


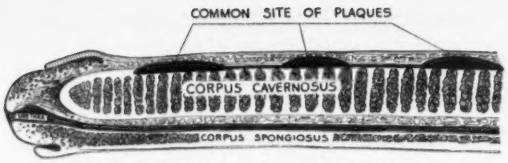
Fig 1

responsive only to firm compression or vehement squeezing) are never attached to the skin above nor do they invade the bodies of the corpora cavernosa beneath. The corpus spongiosum is never affected (Figs. 1, 2, 3). These plaques have usually a rubbery or cartilaginous consistency, but may be dense, unyielding, or even bonelike in substance. For a graphic picture, one might conceive the phallus bedecked with a miniature western-type saddle, the saddle to be equipped with a pelican horn, or horns, and either being somewhat askew in position or having an abbreviated skirt and fender on one side. In our brief series, the "horns" were oftenest in the midline or behind the caput, rather than at the base of the penis.

The clinical course of Peyronie's disease is both whimsical and quite unpredictable. No definite pattern is followed. That this disease is both insidious in onset and slow in development is manifested by the years which often lapse between the prodromal symptoms and the time when the physician is first consulted. Moreover, clinical observation has proved that this disease may lie dormant for long periods without progress. Improvement may occur spontaneously with or without treatment. Spontaneous cures have been reported, but are equivocal. Any change, whether benevolent or sinister, is apt to be subtle and dilatory in character. Prognostic forecasts should, therefore, be guarded and cognizance taken of this bizarre demeanor.

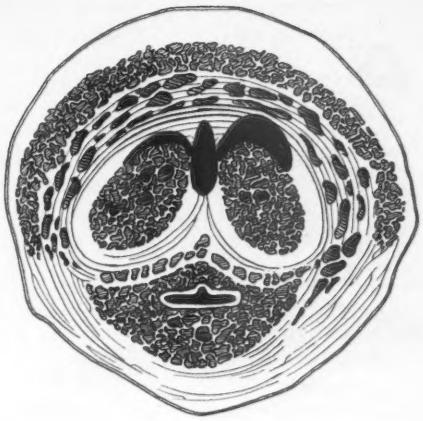
MORBID ANATOMY

The findings in our three operative cases were nearly identical with variance only as to distribution. In each instance, a pearl-gray, glistening scar-like tissue of unbelievable density was moulded heterogeneously and almost inseparably over the septum and dorsal aspects of the tunica albuginea. At divers points, this tissue, with rather a striated appearance, was concentrated into mounds, heaps, or nodules. Extirpation was difficult, and the knife blade rasped harshly over the cut surface. Histologic sections revealed a cellular architecture not unlike hard fibroma, *i. e.*, compact bundles of connective tissue with a paucity of cellular elements. Here and there coarse collagenous fibers arranged in close parallel formation were apparent. No inflammatory change nor round-cell infiltration was evident. No calcific deposition nor osseous metaplasia was discernible.



SAGGITAL SECTION THROUGH PENIS

Fig 2 After PIERSOL



BLACKED AREAS INDICATE ANATOMICAL POSITION OF NODES OR PLAQUES

CROSS SECTION THROUGH PENIS — After PIERSOL

Fig. 3.

ETIOLOGY

The causative factor is unknown. Trauma appears more plausible than factual. From a practical standpoint, actual trauma—worthy of etiologic note—must be vouched for and accompanied by congruent physical evidence. The rôle of lues, gonorrhea, diabetes, gout or arthritis is unproved. Moreover, effective treatment of these coexistent disorders is rarely productive, and antisyphilitic therapy (if the Wassermann is positive) seldom avails herein. The age incidence suggests a degenerative or retrograde change bound up with the problem of senescence.

This fibroma, or keloid-like formation, may eventually undergo metaplasia, with transformation into cartilage or osteoid tissue. That such a distinctive pathological entity could be a phylogenetic throwback, or even remotely related to the os penis or os priapi, an anatomic and physiologic structure normally present in certain lower animals, seems fatuous. Pohl,[1] who has done much work on the male copulatory organs of mammals, points out that certain mammal groups have a terminal corpus cavernosum on the pars intrapreputialis, forming a caput penis which frequently presents a bony structure in the "corpus fibrosum." This bone, which is replete with true osseous elements, has a characteristic shape and form for each species and lies in the glans or caput. Anatomically this bone is situated dorsal to the urethra, which it often partly surrounds and in close proximity to the corpus spongiosum. Figure 4, a sagittal reproduction of the seal's penis (which is fairly representative) graphically illustrates how dissimilar in size, position, and form is the anatomic os priapi to those morbid lesions commonly encountered in Peyronie's disease.

The undaunted proponent of atavism may find support in the study of the "tail" of certain primitive amphibia, although phallic evolution really begins with the disappearance of the cloaca. The presence therein of certain peculiar acellular or sesamoid-like bones—the Nobelian bones [2]—more recently studied by de Villiers [3] in the Ascaphus may have some etiologic import in plastic induration.

DIFFERENTIAL DIAGNOSIS

The subjective and objective symptoms should signalize Peyronie's disease.

Plastic induration, because of the penile angulation, is often confused with chordee. Chordee is always contingent upon lusty urethral inflammation (usually gonorrhea, heroic therapy or stricture formation), with secondary implication of the subjacent corpus spongiosum. Since the inelastic segment is beneath the urethra, the turgid penis bends down (instead of to the side or upward, as in Peyronie's disease) with painful manifestations, dependent upon the inflammatory reaction.

The inflammatory nature of acute cavernositis and dorsal thrombophlebitis distinguishes these entities. Traumatic sclerosis following injuries, wounds or fractures of the cavernous bodies, is readily differentiated from plastic induration.

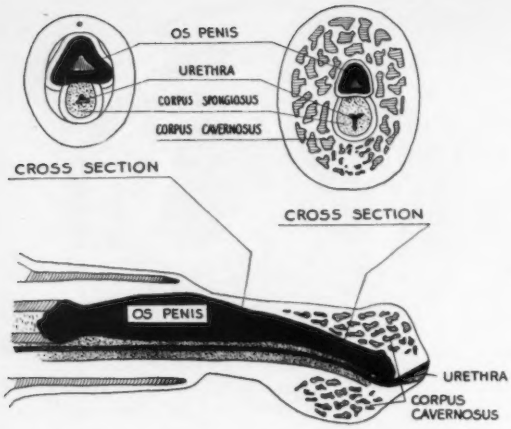
Rare instances of massive bone deposition in the penis, roentgenologically apparent but both regionally and etiologically obscure, should not be confounded with Peyronie's disease.

Syphilitic gummata or cavernositis is uncommon and involves the spongy tissue rather than the tunica albuginea. Hence, there is no angulation and the lesion is tractable to antiluetic therapy.

Carcinoma usually begins in the glans or about the urethra. It is destructive in character, painful by nature, and often ulcerates early. A biopsy confirms the diagnosis.

TREATMENT

The management of this disease tries the soul of the conscientious physician (not to mention the patient's) and makes him wish for proximity to Mimir's well. Any possible choice from his armamentarium is apt to shoot wide of the mark, whether he selects the more conservative fibrolytic bullet, either medicinal (such as potassium iodid, fibrolysin, or more recently and quite empirically, sodium gold thiosulfate) or physical (such as diathermy, radium element and x-ray), or whether he fires the more radical bullet of extirpation. Most of these fibrolytic bullets are poorly designed or pack charges quite inadequate for the task at hand, so that the finest clinical spotting scope is often unable to discover a "hit" (*i. e.*, detect a com-



SAGGITAL SECTION THROUGH SEAL'S PENIS — After POHL Fig. 4

mensurable gross change in the morbid lesion), and achievement must be predicated solely upon the patient's asseveration. With the high velocity bullet of extirpation, the initial relief is usually propitious and striking, but the end-result is often conditioned by subsequent recurrence of the scar tissue.

Obviously, there is no specific for fibrous cavernositis, and more apt therapy necessarily awaits upon etiological enlightenment. Moreover, there are too many imponderables bound up with the personal equation, and the vagaries of this disease to set forth any therapeutic regime for universal application. Treatment must, therefore, be suited to the individual in every instance—first, last, and always.

Consideration of Therapy.—No *exact* evaluation of the various modalities used herein is possible because of: (1) the meager clinical material studied, (2) the personal equation (inclusive of the morbid change and the particular shade of sexual incompatibility), (3) the enigmatic course of the malady, and (4) the relative and intangible character of the end-results, as reported by those under treatment. We must, therefore, content ourselves with impressions and a brief discussion of the different therapeutic vehicles utilized.

Medicinal Treatment.—We have seen no tangible or physical evidence of benefit from either sodium gold thiosulfate or potassium iodid, although cures have been reported following the use of the latter.

Medical Diathermy.—While the action and usefulness of this vehicle may be questioned somatically, it has demonstrable merit psychically and especially with the more intelligent patient. Treatments may be given in the office or, better, as advocated by Wesson,[4] a telatherm or small diathermy machine (so adjusted that no burn or harm can occur and equipped with a special penile electrode) may be given the patient for use *ad libitum* in his home. Wesson reports two cases so treated, and under observation for over seven years, as clinically "cured."

Radium and X-ray.—Radium element, properly screened, was used for an average of 180 mgh. The exact dosage, the number of applications, and the region treated was conditioned by the pathologic change at hand. X-ray therapy was similarly regulated, and exposure (standard 200,000 volt apparatus) usually equaled one-third of an erythema dose for five treatments at five-day intervals. This therapy was under the supervision of Dr. O. S. Cook, radiologist at the Mercy Hospital. Both these potentialities have value, but end-results appear a stand-off. They should be given a fair trial, individually or in combination, in the more urgent case before resorting to surgery.

Operation.—This procedure should be reserved for the more adamant and difficult case. It is interesting to note that two of our operative cases were undertaken because of importunities of the wives concerned. The patient should be apprised of possible sequelae. Plastic concepts should be closely followed, and the incision made accordion-pleated rather than linear, to obviate recurrent scar formation. For the same reason, adroit handling of the tunica albuginea is expedient. Results depend, in no small measure, upon the skill of the surgeon and his knowledge of plastic technique.

CONCLUSION

1. Neither cause nor cure for Peyronie's disease is presently discernible.
2. This disease, which is insidious in onset, has greatest incidence after fifty, and the nodes, which are seldom tender, eventually betray their presence by deflected erections with concomitant pain.
3. The diagnosis is frequently missed because of a cursory examination.
4. Psychic trends are often conspicuously associated with Peyronie's disease.
5. An indurated plaque with distinct edges and tightly adherent to Buck's fascia is pathognomonic.
6. These plaques, which involve only the septum or the tunica albuginea, or both, initially comprise dense fibrous tissue, but may later undergo cartilaginous, osteochondrous or osseous metaplasia.
7. Since spontaneous regressions are common in this disease, the last remedy used may be falsely credited with cure and mistakenly extolled.
8. Surgical results are conditioned by the plastic skill of the operator and his ability to prevent recurrence of scar tissue.

1127 Eleventh Street.

REFERENCES

1. Pohl, L.: Zur Morphologie der männlichen Kopulations-organe der Säugetiere; inbesondere der Versuch einer vergleichend-anatomischen Studie über den Penis der Primaten, einschliesslich des Menschen, Ztschr. f. d. ges. Anat. (Abt. 1), 86:71-119 (June 14), 1928.

2. Noble, G. K.: The Phylogeny of the Salientia, 1922. 1. The Osteology and the Thigh Musculature: Their Bearing on Classification and Phylogeny, Bull. Amer. Mus. Nat. Hist., Vol. 46, Part 1, pp. 33-35, plates 6 and 7; The Biology of the Amphibia, p. 487, p. 283. New York: McGraw-Hill, 1931.

3. Villiers, C. G. S.: Morphology of the Epipubis, Nobelian Bones and Phallic Organs of Ascaphus Truei Stejneger, Anat. Anz. 78:23-47 (11 illustrations), 1934.

4. Personal communication.

SKIN REACTIONS PRODUCED BY 200 KV AND 1000 KV RADIATIONS: A COMPARISON*

By ROBERT S. STONE, M. D.
AND
J. MAURICE ROBINSON, M. D.
San Francisco

BEFORE the roentgen was available as a measure of exposure, the erythema of the skin was used as the measure of dosage, and those amounts of irradiation from different x-ray generators that produced equal erythemas on similar skins were considered to represent equal doses. The authors of this study undertook to determine whether or not similar skin reactions could be produced by high voltage radiations of widely different qualities when using the fractionated method of treatman and, if so, what the measure in roentgens of each quality would be. This work represents another attack on the problem: Is there an inherent difference in the biologic action of radiation generated at different voltages, or can the dosage for the different qualities be so adjusted as to produce similar biologic effects?

METHOD USED

The method used was to treat the right side of the pelvis of patients with uterine cancer, front and back, with 200 kv radiations (H V L 1.05 Cu) one day, and the left side, front and back, with 1000 kv radiations (H V L 9.5 Cu) the next day. The sides treated were alternated daily throughout the course of treatments of about thirty days.

TABLE 1.—*Illustrating the Method of Calculating Dosage*

M.R. Age 42. 16 cm thick.
Four 10x15 fields, 12 treatments to each in 27 days
One day, rt. front and back — 200 kv
Alternate day, lt. front and back — 1000 kv

	Per Treatment		Total.	
	200 kv	1000 kv	200 kv	1000 kv
(1) r in air	200	275	2300	3162
Backscatter	36% 72	9% 25	828	284
(2) r c b.s.	272	300	3128	3446
Exit dose	12% 33	25% 75	375	862
(3) Total skin dose	305	375	3503	4308

Ratio 200 kv / 1000 kv (1) in air 100/137 (2) c b.s 100/110 (3) Total skin dose 100/123

Two hundred r (air measure) per port was used as the standard with the 200 kv radiations, and the amount with the 1000 kv radiations was varied from group to group. The r per minute was kept approximately the same for both qualities.

The exposures were measured in roentgens by a Victoreen condenser r meter (thimble chamber). They were recorded as roentgens in air, roentgens on the skin (r in air + backscatter), and total skin dose in roentgens (r on skin + exit dose). The "total skin dose" is the only accurate measure for comparison, since it alone includes all of the radiations acting on the skin and takes into consideration the size of the field and the thickness of the patient (Table 1).

The skin reactions were recorded at several stages of their evolution by means of kodachrome color photographs. By comparing adjacent areas of the same individuals treated by the two qualities of radiations on the same photograph, not only was the problem of different sensitivities of different skins eliminated, but the pitfalls of visual memory and of subjective bias. The reactions compared were those of the anterior surfaces.

* From the Division of Roentgenology, University of California Medical School, San Francisco.

Read before the Section on Radiology at the sixty-ninth annual session of the California Medical Association, Coronado, May 6–9, 1940.

This study has been aided by grants from the Christine Breon Fund for Medical Research, and the Anna Fuller Fund.

Note: Since the above article was submitted, a more extensive discussion of this subject by the authors has been published. Stone, Robert S., and Robinson, J. Maurice: A Comparison of Skin Reactions Produced by 200 k.v. and 1,000 k.v. Radiation, American Journal of Roentgenology and Radium Therapy, 44:601–609, 1940.

This article contains illustrations in color, of which those in the present article are the black and white counterpart.

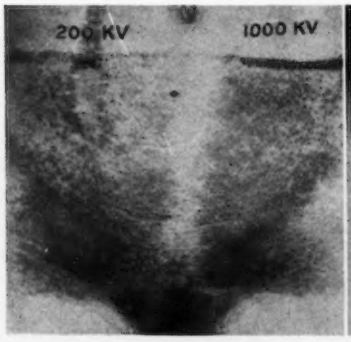


Fig. 1*a*

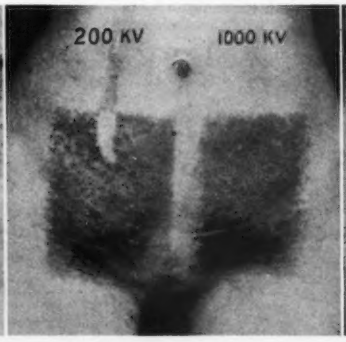


Fig. 1*b*

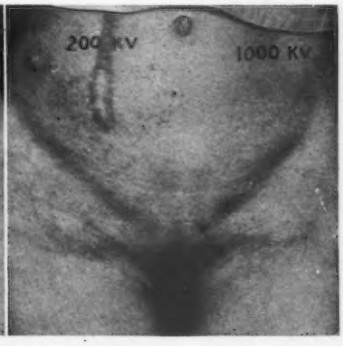


Fig. 1*c*

Comparison of skin reactions produced by radiations of widely different quality: 200 kv on patient's right side 1000 kv on left. *Black crusts caused by application of 10 per cent tannic acid to blistered areas.* Original photos were in color (Kodachrome).

Figs. 1*a*, 1*b*, 1*c*. E. C. (see table 2). Three stages in evolution of *equal* skin reactions. 23 per cent more roentgens in total skin dose on left (1000 kv) side

Fig. 1*a*.—31 days after beginning treatment, 8 days after end. Reactions about equal. Fig. 1*b*.—37 days after beginning, 8 days after end. About equal. Fig. 1*c*—120 days after beginning, 91 days after end. Both sides have recovered at the same rate and to the same degree.

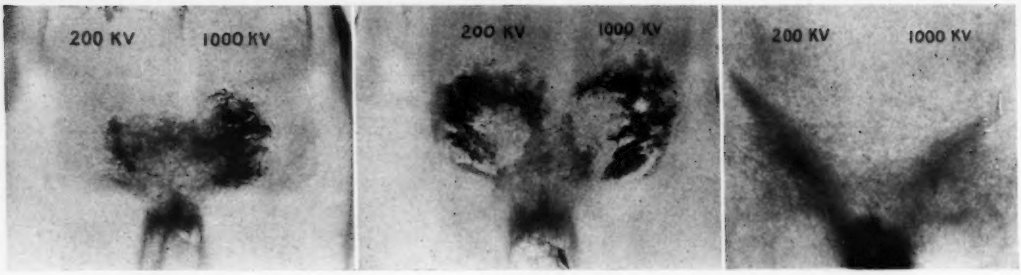


Fig. 2a Fig. 2b Fig. 2c

Figs. 2a, 2b, 2c. E. B. (see table 2). Three stages in evolution of equal skin reactions. 22 per cent more roentgens in total skin dose on left (1000 kv) side.

Fig. 2a.—30 days after starting treatment, 3 days after end. Quite extensive blistering on *left* (1000 kv) side, blackened with tannic acid. Reactions otherwise very similar. Fig. 2b.—35 days after starting, 8 days after end. Nearly equal reactions on the two sides. Fig. 2c.—50 days after starting, 23 days after end. Reactions have cleared to the same degree.

COMMENT

It was found that if the side treated with the 1000 kv radiations received a total skin dose of approximately 25 per cent more roentgens, as measured, than the adjacent surface treated with the 200 kv radiations, then practically equal skin reactions developed—equal as to time of appearance, degree of erythema, extent of blistering and peeling, pigmentation, and subjective symptoms (Figs. 1 and 2). Doses that produce such similar reactions are obviously "biologically equivalent," no matter what the variation in physical units. To secure such biologically equivalent reactions not only must the final total skin dose, but also each fraction, be 25 per cent greater in roentgens. The distribution of the doses in days and the total elapsed time must be the same for the two qualities. Total (and fractional) skin doses greater than the above produced more marked 1000 kv reactions (Fig. 3) and those less, less marked reactions (Fig. 4).

It is shown that the dose in roentgens as measured in air cannot be used as a measure of comparison because the amount of backscatter, which also affects the skin, is so different for the two qualities (Chart 1). A much greater increase than 25 per cent in the number of roentgens as measured in air is required of 1000 kv radiations because of the decreased backscatter. Nor can the dose in roentgens as measured on the skin be used because it does not take into consideration the exit dose which is much greater for the 1000 kv quality. The exit dose varies with the size of the field used and the thickness of the patient and, therefore, varies from patient to patient (Chart 2). Those radiologists who have given the same fractional dose as measured in air, of higher voltage radiations as of 200 kv radiations, were actually giving considerably smaller skin doses and, therefore, should not have expected similar skin reactions even though prolonging the treatments so as to give more roentgens in the total dose.

Since the depth dose is a percentage of the skin dose, and not of the air dose, similar air r doses result in lower depth doses of 1000 kv radiations and, therefore, less diarrhea results. It is hard to believe that with less reaction on the bowel there can be more reaction in the adjacent tumor.

The difference in the number of roentgens, as measured by a thimble chamber, required to pro-

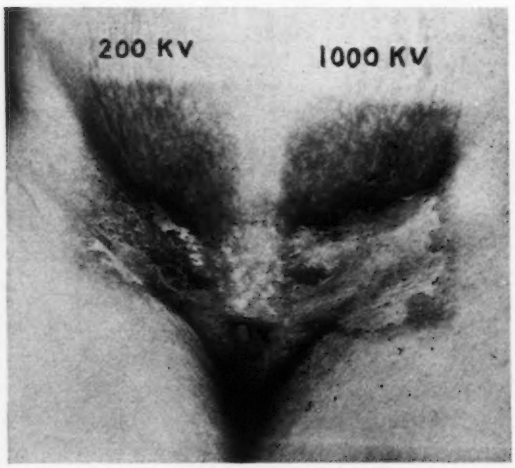


Fig. 3

Fig. 3.—G. T. (see table 4). A stage in evolution of *greater* skin reaction on *left* (1000 kv). 33 per cent more roentgens in total skin dose on left. 52 days after start, 23 days after end. More rapid development and progress on left. Compare figures 3 and 4 with figures 1 to 3 which show equal reaction when 25 per cent more roentgens were present in total skin dose on left side (1000 kv).

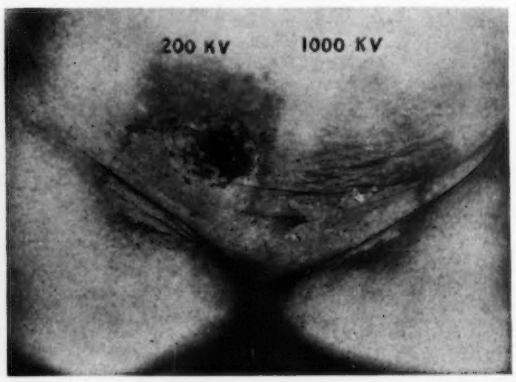


Fig. 4

Fig. 4.—L. G. (see Table 3). A stage in evolution of *greater* skin reaction on *right* (200 kv). Only 12 per cent more roentgens in total skin dose on left (1000 kv). 51 days after start, 17 days after end. Right-sided reaction developed sooner, more severe.

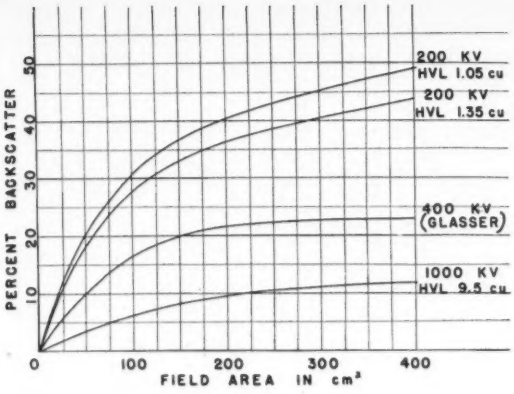


Chart 1

Chart 1.—Curves of percentage backscatter for various voltages and field sizes.

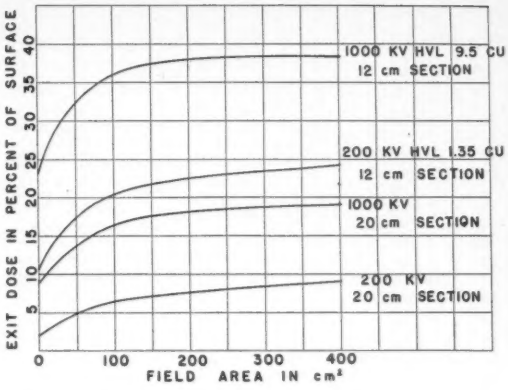


Chart 2

Chart 2.—Curves of exit doses for phantoms 12 and 20 cm. thick.

duce biologically equivalent skin reactions with the two qualities of radiations, is the same as that found by Packard using Drosophila eggs.

The explanation of the 25 per cent differential is not clear. The thimble chamber measurements may not be accurate at both voltages. The energy value of the roentgen is said to be lower at the higher voltages. The fact that the skin reactions were so similar would seem to eliminate a differential wavelength effect.

TABLE 2.—*Group 1: Skin Reactions—Similar*

Patients given approximately 23 per cent more total skin dose (air r + backscatter + exit dose) on left with 1,000 kv radiation than on right with 200 kv radiation. Measurements made with Victoreen condenser r meter. The color photographs showed that in this group the skin reactions to the two qualities were essentially similar. Per cent doses are 1,000 kv doses as per cent of 200 kv doses. All fields 10 x 15 centimeters in size.

Pt.	Thick Centi-meter	No. Tr. Each Field	Elapsed Days	Total r Air		Air r Per Cent	Total r with Backscatter		r Skin Per Cent	Total Skin Dose		Total Skin Per Cent
				200 kv	1,000 kv		200 kv	1,000 kv		200 kv	1,000 kv	
E. B.	14	12	27	2,300	3,125	136	3,128	3,406	109	3,660	4,462	122
E. C.	14	12	29	2,300	3,162	137	3,128	3,446	110	3,660	4,515	123
S. H.	14	14	32	2,300	3,125	136	3,128	3,406	109	3,660	4,462	122
M. R.	16	12	27	2,300	3,162	137	3,128	3,446	110	3,503	4,308	123
A. A.	16	12	29	2,300	3,162	137	3,128	3,446	110	3,503	4,308	123
J. M.	15	12	30	2,300	3,125	136	3,128	3,406	109	3,565	4,360	122
C. M.	15	12	30	2,300	3,125	136	3,128	3,406	109	3,565	4,360	122

TABLE 3.—*Skin Reactions—200 kv More Marked*

Group 2. Patients given approximately 10 per cent more total skin dose (but almost equal doses as measured on skin without exit dose) on left with 1,000 kv radiation than on right with 200 kv. Color photographs showed somewhat more severe reactions to 200 kv.

Group 3. Patients given approximately same dose as measured by roentgens in air on both sides. This calculates to 15 per cent less total skin dose on left (1,000 kv) than on right (200 kv). Color photographs showed very much more severe skin reactions to 200 kv radiation. Per cent doses are 1,000 kv doses as per cent of 200 kv doses. Fields 10 by 15 centimeters except J. R., 10 by 20 centimeters.

Pt.	Thick Centi-meter	No. Tr. Each Field	Elapsed Days	Total r Air		Air r Per Cent	Total r with Backscatter		r Skin Per Cent	Total Skin Dose		Total Skin Per Cent
				200 kv	1,000 kv		200 kv	1,000 kv		200 kv	1,000 kv	
GROUP 2												
M. S.	16	13	31	2,479	3,016	122	3,383	3,288	97	3,823	4,110	107
L. G.	16	14	33	2,635	3,333	126	3,584	3,633	101	4,050	4,541	112
J. R.	18	15	36	2,900	3,623	125	4,060	3,985	100	4,466	4,862	109
GROUP 3												
H. C.	18	16	40	3,627	3,550	98	4,951	3,862	78	5,446	4,636	85
E. S.	20	14	32	3,159	3,090	98	4,283	3,362	79	4,612	3,943	85

TABLE 4.—*Group 4: Skin Reactions—1,000 kv Slightly More Marked*

Patients given approximately 30 per cent more total skin dose (air r + backscatter + exit dose) on left with 1,000 kv radiation than on right with 200 kv. Color photographs showed more severe reactions of varying degrees on side treated with 1,000 kv. Per cent doses are 1,000 kv doses as per cent of 200 kv doses. All fields 10 x 15 centimeters in size.

Pt.	Thick Centimeter	No. Tr. Each Field	Elapsed Days	Total r Air		Air r Per Cent	Total r with Backscatter		r Skin Per Cent	Total Skin Dose		Total Skin Per Cent
				200 kv	1,000 kv		200 kv	1,000 kv		200 kv	1,000 kv	
M. M.	20	13	32	2,500	3,700	148	3,400	4,033	119	3,655	4,719	129
I. S.	18	13	33	2,500	3,700	148	3,400	4,033	119	3,740	4,840	130
L. S.	16	13	33	2,500	3,700	148	3,400	4,033	119	3,808	5,051	133
E. F.	19	11	36	2,100	3,100	148	2,856	3,379	119	3,113	4,021	129
G. T.	16	13	29	2,500	3,700	148	3,400	4,033	119	3,808	5,051	133
E. N.	17	13	33	2,500	3,700	148	3,400	4,033	119	3,797	5,013	132

It would seem that if radiologists are interested in biological effect, rather than in giving a certain number of roentgens, they should cease making the loose statement that bigger doses of so-called supervoltage radiation can be given with less skin effect. What is really meant by such a statement is that it takes a greater number of "roentgens," as measured by a thimble chamber, to produce the same effect. *If it takes more "roentgens" to produce the same effect on the skin, is it not likely that it would take more "roentgens" to produce the same effect on the tumor?* It is false and misleading, both to the laity and to other physicians and surgeons, to speak of "bigger doses." We should use the term "biologically equivalent" doses until the physicists provide us with a truly comparative measure to use on the various voltage radiations.

We are not here concerned with the advantages or disadvantages of one or the other types of radiation. Our aim has been the demonstration that similar skin reactions will be produced by widely different qualities of radiation if biologically comparable methods of treatment are employed.

CONCLUSIONS

1. Similar skin reactions can be produced by 200 kv and 1000 kv radiations on opposite sides of the abdomen of the same patient.

2. The similarity includes: (1) Time of appearance; (2) Degree of erythema; (3) Extent of blistering and peeling; (4) Degree of pigmentation; (5) Subjective symptoms.

3. The physical doses, as measured by a thimble chamber, are not the same. It required approximately 25 per cent more roentgens in the "total skin dose" of the 1000 kv radiations.

4. To produce these similar reactions the fractional doses, as well as the total doses, must be "biologically equivalent."

5. The distribution of the dose in days, and the total elapsed time must also be the same.

6. The difference in the number of roentgens, as measured by a thimble chamber, required to produce "biologically equivalent" skin reactions with the two qualities of radiation, is approximately the same as that found by Packard using Drosophila eggs.

7. "Biologically equivalent" doses, merely because they require a greater number of "roentgens" of higher voltage radiations, should not be described as "bigger doses."

University of California Hospital.

REFERENCES

1. Glasser, Otto: Dosage Measurements on Ten 400 kv Roentgen-Ray Generators, Am. J. Roentgenol., 38:769-755 (Nov.), 1937.

2. Lauritsen, Charles C.: On Relation Between the Roentgen and Erythema Dose, Am. J. Roentgenol., 33: 235-236 (Feb.), 1935.

3. Packard, Charles, and Exner, Frank M.: A Comparison of Biological and Dosimeter Measurements at Voltages from 200 to 1000 kv. Read at Third International Cancer Congress, September 12, 1939.

4. Stone, Robert S.: Skin Reactions Caused by 1000 kv and 200 kv Radiations, Radiology, 30:88-93 (Jan.), 1938.

USE OF THE "BLOOD BANK" IN TRANSFUSIONS*

By NEWTON EVANS, M. D.
Los Angeles

BLOOD transfusion is one of the outstanding accomplishments of modern scientific medicine. It became possible through the discovery of the blood groups by Landsteiner in 1900. The multiple syringe method is probably the best method for direct transfer of fresh blood. The indirect citrate method has largely supplanted direct methods, because of its ease and simplicity. At the Los Angeles County Hospital the citrate (indirect) method has been the routine procedure for about ten years. At the Mayo Clinic the citrate method has been routinely used for more than twenty years.

While the use of refrigerated blood was introduced during the World War (1918), that method attracted little attention in this country till about three years ago. In July, 1937, Fantus of Cook County Hospital published in *The Journal of the American Medical Association* a description of their "blood bank." It was called a "bank" because the refrigeration storage system necessitated a plan for deposit and withdrawal of blood analogous to the depositing of funds in a bank for the establish-

* Read before the Section on General Surgery at the sixty-ninth annual session of the California Medical Association, Coronado, May 6-9, 1940.

ment of a credit balance, against which the creditor might draw.

PLAN AT LOS ANGELES COUNTY GENERAL HOSPITAL

At the Los Angeles County General Hospital the plan appeared attractive, and the practicability of utilizing it was studied. It offered three distinct advantages.

1. It would save precious time in emergencies where haste was necessary to save lives, and where the old system of finding a suitable donor, involving the necessary tests, including compatibility tests and serologic tests for syphilis, and the collecting of the blood, often proved too time-consuming.

2. It would prevent the all too frequent accident of giving blood from a donor who was later proved, by the routine Wassermann and Kahn tests, to be Wassermann-positive, notwithstanding the fact that the preliminary emergency serology test (Kline test) appeared to be negative. It is a well-recognized fact that there is a definite, irreducible minimum of disagreement between the Wassermann complement-fixation test and the flocculation test. Under the blood bank system it would be possible to test all blood used, by routine methods, and avoid using any such questionable bloods.

3. It would make possible the saving of many thousands of dollars which were being spent for professional or paid donors.

All three of these expectations have been realized by actual experience with the stored blood method.

ARMAMENTARIUM

The equipment, including chiefly a large refrigerator with suitable drawers for the various types of blood in the different stages of sterility and serology tests, was provided. The necessary forms and rules of procedure were established. In January, 1938, the method was begun routinely, and by the end of the second year, January, 1940, about 8,500 transfusions had been given with refrigerated blood. This would be an average of about twelve transfusions daily. With this large volume of blood deposited and withdrawn daily, it has been found that there is very little blood lost by becoming too old for use. The present rule is to use no blood which has been in storage longer than seven days. The types of blood accepted are, of course, chiefly type 4 and type 2, since these constitute the great majority of both donors and patients, and since type 4 (the universal donor type) is used freely for patients of any of the four groups. The use of type 4 blood for patients of the other groups is not the rule followed in many clinics where only donors of the same type as the patient are used.

It is obvious that the blood bank could not be successfully used in any but larger hospitals, where the turnover is rapid.

TIME LIMIT ON BLOOD STORAGE

The changes in the red cells of the stored blood determine the time limits for its use. In the original report from Cook County Hospital, the statement was made that the blood could be used up to "three or four weeks." In July, 1938, a year later, they had reduced the time to "ten days." In our hospital, at first the blood was used up to ten days. Experience led us to reduce this to seven days. When blood is kept longer than this, some of the cells begin to hemolyze. The most dependable experimental observations dealing with this point with which I am acquainted were published by Wiener and Schaeffer last October. Doctor Wiener of Brooklyn is the well-known authority on blood typing, whose book is widely used and regarded as authoritative. He noted three facts:

1. That if blood stored in citrate solution were used later than seven or eight days the transfused cells disappeared from the recipient's blood at a much faster rate than if fresh blood were used, or blood stored for less than eight days.

2. That blood transfused later than the seventh or eighth day produced a detectable hemoglobinemia, as determined by colorimeter tests.

3. That if the older blood were used an actual hemolytic jaundice could be detected in the recipient.

It is recognized, both from clinical observation and animal experimentation, that such hemoglobinemia is injurious, particularly to the kidneys.

ANTICOAGULANT PRESERVING FLUID

Sodium citrate solution, 2.5 per cent in physiologic saline, is the usual solution employed. At Cook County Hospital, for preserving 500 cubic centimeters of blood, 70 cubic centimeters of 2.5 per cent citrate is used; but when the blood is transfused, another equal amount of saline solution is added, so that the blood is actually diluted to more than double its original volume. At the Los Angeles County General Hospital, 250 cubic centimeters of .7 per cent sodium citrate is used. One important advantage of this technique is that, with this larger amount of fluid when the blood is allowed to flow into the diluting fluid from the donor's vein, practically no agitation of the container is necessary to prevent clotting of the blood, which is not true if the smaller amount of diluting fluid is used.

Considerable experimental work with different diluting fluids has been reported, notably that of DeGowin (and coworkers) at the University of Iowa. They have arrived at the routine plan of using 750 cubic centimeters of a dextrose and sodium citrate solution for 500 cubic centimeters of blood. Such a mixture will protect the blood against hemolysis to such a remarkable degree that the blood may be kept in the refrigerator for periods up to thirty days and is still usable. Such a method evidently presents marked advantages for small hospitals where a slower turnover obtains.

OPTIMUM TEMPERATURE FOR REFRIGERATION

For the two years that our refrigerator has been operating, it has been kept at 5 degrees centigrade (4 to 6 degrees). According to reports from Cook County Hospital, they originally used a 5 degree

average temperature, but more recently they have changed to 2 degrees, with a maximum of 4 degrees. DeGowin states they use a temperature of 5 degrees centigrade.

We have recently adopted a plan suggested by DeGowin, of refrigerating the diluting fluid in its container, prior to drawing the blood from the vein into the fluid. He observed a definite superiority of blood rapidly chilled in this way in the feature of less rapid hemolysis.

Another observation of DeGowin seems to be of considerable importance, namely, that it is unnecessary to heat the blood to body temperature just before the transfusion begins. He has followed this plan in several hundred cases without any evident untoward effects.

LABORATORY TESTS

The use of stored blood makes it possible to carry on the essential routine laboratory tests with accuracy and deliberation. These tests include:

1. Determination of the type of blood, whether it is O, A, B, or AB type, according to the Landsteiner terminology.

2. Cross-matching with the blood of the patient just prior to its use. Rather surprisingly, at the Mayo Clinic it is routine procedure to omit this cross-matching, depending entirely on the independent typing of the donor's and the patient's blood, to determine the compatibility. We feel that the additional safeguard of cross-matching is worth the trouble in giving added confidence in its compatibility.

3. Testing the blood for bacteriologic sterility.

4. Making the serologic tests for syphilis. In our laboratory, for years these have included the Wassermann complement-fixation test (Kolmer modification) and the Kahn flocculation test.

TRANSFUSION REACTIONS

Occasional untoward reactions accompany or follow the introduction of the blood. The symptoms constituting such reactions include pain in the back or chest, dyspnea, chills and fever, flushing of the face, signs of shock, nausea and vomiting, and, occasionally, later evidences of hemolysis, with hemoglobinemia and oliguria or complete renal failure with anuria.

The factors responsible and the mode of their action are not entirely clear. They include (1) those relating to the patient's own condition, as in fevers and infections, and allergic reaction; (2) technical factors, such as lack of complete clinical and bacterial cleanliness; (3) and the most important, probably, those concerned with the use of incompatible blood, such as occurs when a mistake is made in the type of blood used. Probably more often an incompatibility exists when a blood is used which contains a so-called subgroup A_2 agglutinogen, which is unrecognized and is not readily detectable by the routine typing methods.

Statements from the Cook County Hospital apparently minimize the importance of transfusion reactions. Other data from carefully supervised transfusion services would indicate that approximately 10 per cent of transfusions are accompanied by reactions of a definite grade of severity. DeGowin of Iowa City frankly reports thirteen untoward reactions of what he calls a "grave" nature in 3,500 transfusions. Of these thirteen cases, seven ended fatally, five had serious renal insufficiency, and two, pulmonary edema. In the past two years at the Los Angeles County General Hospital there have occurred at least one or two deaths which were probably due to renal failure incident to severe hemolysis. In these cases it was shown, by later rechecking the typing and the cross-matching, that no mistakes had been made in the typing of the blood used.

The chief technical errors which may be responsible for reactions, aside from the typing difficulties just mentioned, are lack of cleanliness in the tubing and other equipment and the effects of the so-called "pyrogens," that being the name given to certain bacteria which are known to grow in the distilled water that is used for the preparation of the citrate solutions. This can be controlled by the immediate sterilization and protection from the air of the distilled water. All of this work is successfully done in the manufacturing department of the pharmacy at the County Hospital, where the anticoagulant solutions are prepared and sealed.

The only published comparison of the incidence of reactions in transfusions with refrigerated blood and immediate citrate transfusions is from the Mayo Clinic. In Rochester, they are gradually coming to use more and more the refrigerated blood, and their data for the past two or three years show a definite advantage of the refrigerated blood over the immediate transfusions in the incidence of reaction, as will be seen by a lantern slide which I plan to put on shortly.

Considerable doubt exists regarding the innocuousness of using type 4 blood in patients belonging to one of the other three groups. I shall exhibit a lantern slide which shows statistically that no more reactions occur in this combination than when homologous groups are exclusively used.

OTHER CHANGES IN STORED BLOOD

It has been pointed out that certain chemical and biological changes occur in stored blood, and the importance of the dissolution of the red cells has been discussed above. Although no materially significant hemolysis occurs in the bank blood during the first seven days, other changes do occur, including the dissolution of some of the leukocytes and of the blood platelets, as well as a marked drop in the prothrombin, and the blood sugar. Another feature to which considerable attention has been given is the passage of the potassium ions from the red cells into the blood plasma. This last item, according to the best information now available, is of no practical significance.

It seems evident, however, that a marked reduction in the leukocytes and platelets does lessen the value of the blood in conditions where these elements are needed, as in the thrombocytopenic purpuras and the agranulocytic anginas and aplastic

anemias. It is also obvious that in efforts to combat the hemorrhagic tendencies in jaundice, blood with reduced content of prothrombin would have less value than fresh blood. However, it is probably true that the use of vitamin K and related substances is much the most effective means of combating these conditions, rather than by transfusions.

INDICATIONS FOR TRANSFUSIONS

The chief indications for transfusions of whole blood are acute hemorrhages, severe secondary anemias due to hemorrhages and other causes, and shock. It is probable that altogether too many transfusions are given in our hospital, as well as in other places, on insufficient grounds. Serious question exists regarding the wisdom of transfusions for sepsis and infections. Bates* of Northwestern University not long ago presented data indicating that transfusion for septic conditions and in leukemias are useless and sometimes even dangerous.

Transfusions in the condition of dehydration often seen after extensive burns deserves some discussion. In the nature of the process there results a loss of tissue fluids and blood plasma with blood condensation, and a relative red cell increase, which would seem to be best corrected by the administration of blood plasma without the red cells. Some reports of clinical observations confirm this view.

A somewhat similar condition exists in many cases of secondary shock without hemorrhage. It appears logical that the intravenous administration of citrated blood plasma from which the cells have been removed by centrifugation will meet the indication for rapid blood volume increase. Recent clinical reports of a practical application of this method will support the view that it is a most effective life-saving procedure.

SUMMARY AND CONCLUSION

1. Use of stored refrigerated blood has certain definite advantages in a large hospital.

2. These include:

(*a*) Available blood for emergencies.

(*b*) Time for careful, deliberate performance of necessary laboratory tests.

(*c*) A marked financial saving.

3. Published data show that reactions are not more frequent than with the immediate use of citrated blood.

4. The use of type 4 blood (universal donor) does not result in more reactions than using homologous blood.

5. The stored blood is particularly useful in acute hemorrhage, secondary anemia, and in shock.

6. Blood transfusion is a therapeutic measure of great value, but it presents numerous problems which demand intensive investigation, particularly as to indications and contraindications, and the causes and prevention of untoward reactions.

Los Angeles County General Hospital.

* S. G. & O., vol. 65, p. 545.

RELIEF OF PAIN ABOUT THE HEAD AND NECK*

By HOWARD A. BROWN, M. D.
San Francisco

PAIN about the head and neck may result from a variety of pathological processes. Our present discussion will be confined to the various types of neuralgia and the intractable pain resulting from malignant disease in the cranial and cervical regions.

MAJOR TRIGEMINAL NEURALGIA

Most important, from the surgical standpoint, is major trigeminal neuralgia or tic douloureux. This condition is a distinct clinical entity, not to be confused with other neuralgias of the face described below. The character of the pain in tic douloureux is always the same and is diagnostic. It is sharp, jabbing and lightning-like, occurring in short paroxysms and stopping abruptly. Recurrent attacks may occur from minutes to hours apart, with complete relief between paroxysms. Often the patient wears an expression of apprehension and fear in anticipation of further suffering. The pain is usually unilateral and may involve any or all branches of the fifth nerve, tending to start in one branch and gradually to spread to the others. The commonest points of origin are in the second or maxillary division involving the infra-orbital region, and the third or mandibular division which includes the lower jaw and tongue. From either of these locations the pain may gradually spread to the first division, or ophthalmic branch, supplying the supra-orbital area, but it is seldom primary in this division.

The paroxysms are aggravated by chewing, talking, swallowing, or exposure of the face to cold air. Trigger points are not uncommon, and the slightest touch may initiate an attack of pain. These areas are often about the angles of the mouth, or alae of the nose, and may prevent washing of the face or shaving. Such patients present a pitiful picture of emaciation, exhaustion, and fear.

ETIOLOGY

The etiology of the disease is still obscure. Various theories—infection, sclerotic changes and others—have been advanced to account for tic douloureux, but none has been confirmed. The course is progressive, with gradual spread to other branches of the fifth nerve, but with occasional spontaneous remissions which may last for several months or even years. No findings are evident on objective examination. Trigeminal neuralgia is a disease usually appearing after the fourth decade, and rarely occurring before the age of thirty years. The average age is around fifty-five to sixty years, and males and females are about equally affected.

TREATMENT

The majority of patients undergo a variety of treatment, including extraction of teeth, operations

* From the Department of Surgery, University of California Medical School.

Read before the Section on General Surgery at the sixty-ninth annual session of the California Medical Association, Coronado, May 6–9, 1940.

on the nose, throat, and sinuses. None of these procedures is of the slightest value in the treatment of tic douloureux. Conservative measures may be tried. Trichlorethylene, used as an inhalant, may give temporary relief in some cases. More recently, improvement has been reported with the use of vitamin B_1, but there has been too little experience with this as yet to allow any positive statement as to its value or the duration of improvement. Alcohol injections or neurectomies of the peripheral branches of the fifth nerve give temporary relief for from six to eighteen months. Alcohol injections are confined largely to the second and third divisions and their branches. These procedures are highly technical, and are not entirely without risk of injury to near-by structures. They should be undertaken only by those highly conversant with such work.

Peripheral neurectomies on the supra-orbital, infra-orbital and inferior dental nerve may be done if the pain is confined to their distribution. All of these measures, however, are of temporary benefit only. The great majority of patients eventually require section of the sensory root of the gasserian ganglion which does not regenerate, so that this procedure results in permanent relief of pain. The operation is attended by a mortality rate of only about one per cent despite the advanced age and poor physical condition of many of these patients. Following section of the root, permanent anesthesia of the face results; at times paresthesias are present which are annoying, but in no way comparable to the previous pain. Section of the root is seldom done until previous alcohol injections have accustomed the patient to numbness about the face.

Certain refinements in technique have been brought about since Frazier originally sectioned the sensory root in 1901, as suggested by Spiller. Frazier later advocated sparing the motor root supplying the muscles of mastication, and subsequently spared the fibers of the ophthalmic division when pain did not involve this area. In this way it is possible to avoid anesthesia of the cornea, so that no special protection of the eye is necessary. More detailed differential section of the root to include only the fibers of the involved area was later suggested by Stookey. The operation is now performed with a straight incision inside the hairline through a small opening in the temporal bone, and the approach is entirely extradural. Dandy advocates approach through the posterior fossa, but the majority of surgeons prefer the subtemporal route. The facial nerve is not disturbed and, contrary to popular belief, facial paralysis is not to be expected. Occasionally transient facial weakness occurs a few days after operation because of injury about the superficial petrosal nerve, but gradually clears completely.

Sufferers from tic douloureux can be completely relieved of their pain and, if an early diagnosis is made, may avoid many unnecessary surgical procedures and be spared months or years of suffering.

GLOSSOPHARYNGEAL NEURALGIA

Glossopharyngeal neuralgia is also a distinct entity and is comparable to the major neuralgia of the fifth nerve (tic douloureux), but is less common. It was first described by Weisenberg in 1910, and is characterized by paroxysmal pain at the base of the tongue and in the tonsillar fossa, radiating to the region of the ear and occasionally into the neck. The attack of pain is short and is precipitated by swallowing, chewing, or touching the base of the tongue. The pain is sharp, stabbing, and stinging in character, and there is often a cough which occurs at the conclusion of a paroxysm. An accurate diagnosis can be made by cocainizing the tonsillar fossa, which will stop the pain as long as the cocain is effective. Treatment consists of intracranial section of the ninth nerve, which affords complete relief of pain without the production of unpleasant residual symptoms. The slight sensory loss in the palate and the unilateral loss of taste on the posterior portion of the tongue are of no consequence.

ATYPICAL FACIAL NEURALGIA

Atypical facial neuralgia, so called to differentiate it from tic douloureux, is not an uncommon condition. Much has been written about this condition, and it has been subdivided into a number of individual neuralgias, which will not be dealt with here. Their accurate identification in these subdivisions is difficult and often questionable, and the treatment of all is uniformly limited. The chief characteristic of atypical neuralgia of the face is that the pain is constant with exacerbations, in contrast with the paroxysmal type of pain occurring in tic douloureux. It is often described as a deep, aching, burning type of discomfort, and does not necessarily confine itself to the distribution of the fifth nerve. It may overlap into the occipital or cervical regions as well, and may be either unilateral or bilateral. The onset is likely to be rather abrupt without apparent etiological factor. In some instances the symptoms may develop in association with infection of the sinuses, and not infrequently they appear after dental extractions. The etiologic factor, however, is often entirely obscure, despite a careful search for and eradication of any possible foci of infection that might be contributing factors.

The treatment of these neuralgias presents a very difficult problem. They are often aggravated by operations on the nose or sinuses, or by repeated attacks upon a tooth socket or jaw bone after a dental extraction. Alcohol injections of nerve trunks or neurectomies are inadvisable, for they merely add an annoying anesthesia without relief of pain. Aside from the removal of obvious foci of infection, treatment should be of a conservative nature. An attempt should be made to build the physical reserve by general supportive measures, along both medical and dietary lines, as well as to divert the patient's mind, in so far as possible, from constant attention to his problem. Only occasionally have trichlorethylene inhalations appeared to be of help. The regular use of mild sedatives, such as phenobarbital, is helpful as a general measure. Very recently vitamin B_1 has been used in these neuralgias with some success. It is difficult as yet to evaluate its therapeutic value accurately, but the results in a limited number of cases have been encouraging. It would appear ad-

visable to employ it in large doses intravenously as well as by mouth.

CONVULSIVE TIC

Painful facial spasm or convulsive tic is a rather rare condition associated with severe paroxysms of facial pain accompanied by spasmodic contractions of the facial muscles. These may involve any part of the face, and care must be taken not to confuse this condition with tic douloureux. The etiology of convulsive tic is entirely unknown. Treatment is not particularly satisfactory; section of the fifth nerve gives no relief; section of the seventh nerve stops the facial spasm, but the pain may persist.

POSTHERPETIC NEURALGIA

Another very distressing condition, one of frequent occurrence, is postherpetic neuralgia. Herpes zoster may involve any of the branches of the trigeminal nerve, but the ophthalmic branch about the forehead and eye is most frequently affected. The pain is of constant burning character and may persist long after the eruptions have disappeared. It is not unusual for a patient to threaten suicide because of constant, intense pain.

In the acute stages, iodids may be helpful and, in some instances, the intravenous use of endoarson (containing iodin, arsenic, and phosphorus) will stop all pain when narcotics have been valueless. Injections of pituitrin also have been used with some success. According to some reports, diphtheria antitoxin has been used with relief of pain. On the other hand, these measures may afford very little relief in chronic postherpetic pain. Section of branches of the fifth nerve, or the sensory root itself, are valueless and are contraindicated. The use of vitamin B_1 is worthy of a trial, and x-ray therapy has been reported as giving occasional relief. Unfortunately, many of these patients are not benefited by any known measures of treatment.

PAIN IN MALIGNANT DISEASE

Malignant disease about the head and neck is often associated with severe and intractable pain. In many instances these conditions are not of a rapidly progressive nature, and patients may survive for several years. Pain, however, may make life unbearable, and the use of increasing amounts of narcotics is not only depressing but does not afford real relief.

Malignancies of the lip, tongue, cheek and accessory sinuses may produce severe pain in portions of the distribution of the fifth nerve. Interruption of the sensory fibers to the involved area will result in anesthesia and loss of pain. This may be accomplished by alcohol injections in localized lesions or by section of the sensory root of the fifth nerve if the pathological process is more widespread. Pain may extend beyond the limits of the fifth nerve, involving the palate, as in carcinoma of the tongue, or extending into the region supplied by the cervical nerve. Consequently, a careful analysis of the location and extent of the pain is essential before any procedure is undertaken. The ninth nerve supplying the palate may be sectioned intracranially and, at the same time, the upper cervical roots may be divided to relieve pain in their distribution.

Sjoquist recently described section of the bulbospinal tract of the fifth nerve for the relief of pain. The section is made intracranially in the brain stem and results in loss of pain and temperature sense on the homolateral side of the face, but allows preservation of the sense of touch. Sjoquist used this procedure in the treatment of tic douloureux, but it is equally applicable to the relief of the pain caused by malignancy. More important is the fact that section of the ninth nerve, the tract of the fifth nerve, and the upper cervical nerves can be combined in one operative procedure if pain is extensive. Otherwise it is necessary to section the fifth nerve through a subtemporal approach, and the other nerves by a suboccipital exposure. Following the production of anesthesia and the relief of pain, the local lesion may be excised or removed in so far as possible without anesthetic, overcoming some of the unsightliness to the patient and those about him.

These procedures are, of course, highly technical and are attended by some degree of risk. The patient's unrelenting pain must be taken into account, however, together with the prognosis of the malignancy. Such methods of treatment are really acts of mercy which the patient should have an opportunity to accept or refuse before resorting to the steady use of drugs. In any event, such therapy should be considered before the patient has become addicted to narcotics. The majority of patients prefer the surgery and its risk to the nightmare of a future without hope or comfort.

384 Post Street.

APPENDICEAL CALCULUS

REPORT OF CASE

By FRANK R. GUIDO, M. D.
Visalia

ALTHOUGH foreign bodies in the lumen of the vermiform appendix are occasionally encountered, the presence of a true calculus visible by the roentgen ray is of rare occurrence. Appendoliths, which are nothing more than fecal concretions, are found with such frequency as to suggest a possible etiologic connection. Wangensteen and Bowers[1] found fecaliths in 80 per cent of their cases which terminated in gangrene and 44 per cent of the suppurative cases. However, it is not within the scope of this paper to discuss the rôle of concretions either in the etiology or the end-results of appendicitis.

Mitchell,[2] in an exhaustive review which appeared forty-one years ago, gives details of numerous case histories of the presence of many interesting objects found within the lumen of the appendix. Among the various objects which have been found were shot, pins, worms, teeth, gall-stones, bullets, fruit seeds, and many others. In many instances these patients showed no ill effects from the presence of these foreign bodies, and many were found accidentally at autopsy when death was due to

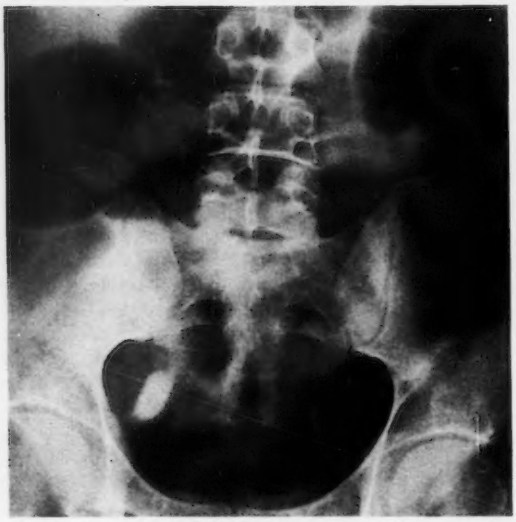


Fig. 1.—Note large amount of gas in bowels.

other causes. In this connection, Mitchell [2] quotes an interesting observation by Hevin in the Mémoires de l'académie Royale de Chirugie, 1743, 1, 460: "One notices sometimes in opening the bodies of persons who, during life have eaten a great deal of game, that there is collected in the intestines, and especially in the cecal appendix, a great quantity of shot, without these persons having had the least inconvenience."

In contradistinction to the ordinary fecalith and to foreign bodies which are accidentally ingested (of which there are many recorded cases), a true calculus or a calcified fecalith is extremely rare. Recent literature gives very few statistics on its frequency. Bunch and Adcock,[3] in a series of two thousand cases, have encountered it only on one occasion. It is probable that very few active surgeons have ever encountered such a case during their surgical experience. It is peculiar that such a large calculus as reported in this case, which necessarily must have been present for some time, should not have caused previous symptoms. Royster,[4] up until 1921, gives Packard [5] the credit of having removed the largest appendix stone on record, weighing eight grams and measuring 1 by 2 by 4 centimeters. This, however, is surpassed in size by the stone removed by Bunch and Adcock,[3] which weighed 13.5 grams and consisted essentially of calcium and magnesium phosphates.

DIAGNOSIS

A true calculus of the appendix is always visible by the roentgen ray, but because of its rarity its shadow is usually mistaken for the much more frequent ureteral calculus. If barium has been previously administered, a persistent residue in the appendix may coat the concretion and give a similar shadow. The passage of an opaque ureteral catheter will usually allow a differentiation. Douglas and LeWald [6] reported a case of a calcified fecal concretion which was found in the abscess cavity after the appendix had ruptured and which had been previously visualized by the roentgen ray.

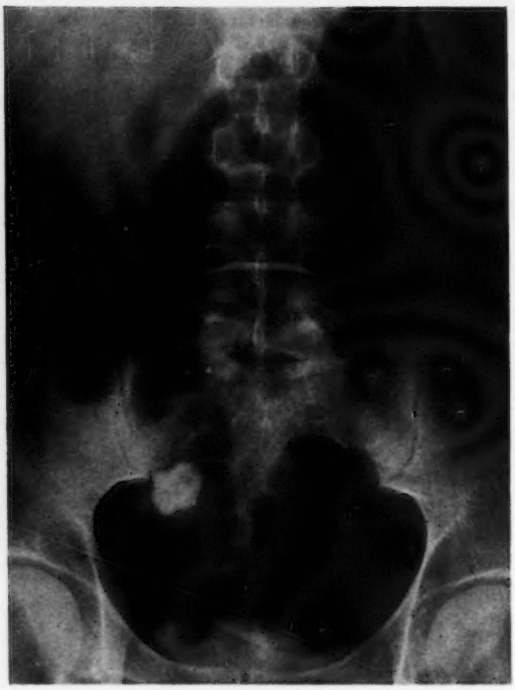


Fig. 2.—Note position of calculus changed, also apparent large size of right kidney with lack of dye. Dye present in left kidney pelvis.

To illustrate the difficulty of diagnosing radio opaque concretions of the appendix preoperatively, Phahler and Stamm,[7] in 1915, stated that only one case had been diagnosed before operation, and that by Weisflog, in 1906, who found two stones in the appendix. However, since then there have been scattered reports of such concretions demonstrable by the roentgen ray. In many instances they have been found lying free in the peritoneal cavity, having escaped from a ruptured appendix. Case,[8] in 1916, reported two instances of concretions correctly diagnosed by the roentgen ray and confirmed at operation. Even with the use of the opaque ureteral catheter, mistakes in diagnoses are made, as attested by the similar cases of Seelig [9] and Eastmond.[10] In both instances the ureter was obstructed at the point of the suspicious shadow. The obstruction of the ureter was caused by an inflamed appendix adherent to the ureter, and the shadow in the roentgenogram was due to the concretion in the appendix in close proximity to the

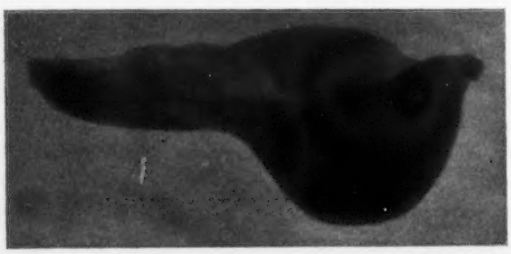


Fig. 3.—X-ray film of appendix immediately after removal.

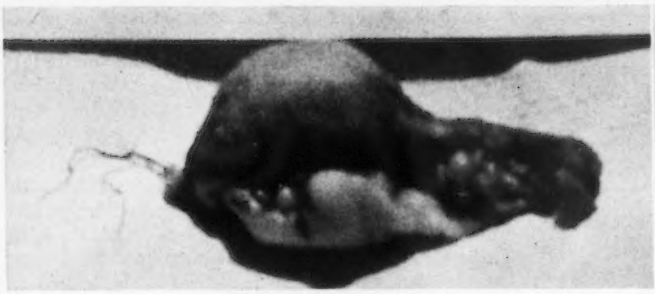


Fig. 4

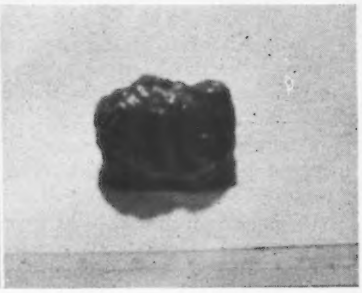


Fig. 5

Fig. 4.—The calculus occupies the proximal half of the appendix.
Fig. 5.—Photograph of calculus measuring 2½ cm. in length. Note nodular appearance.

ureter. In such instances, a lateral roentgenogram with the opaque catheter in position will greatly aid in clearing up the diagnosis.

The following case is reported because of the paucity of reports in the literature, thus indicating the rarity of the condition, the large size of the calculus, the freedom of previous symptoms, the absence of advanced inflammatory changes in the appendix, and the bizarre clinical and roentgen findings which confused the clinical picture to such an extent that no suspicion was cast on the appendix as the offending organ.

REPORT OF CASE

W. L. W., white, married, male, age 38, and a farm laborer. For the past few years he has been a heavy drinker of alcohol and, except for occasional attacks of "sprained back," he has never been ill. He was first seen at 8 a. m. on April 22, 1940, complaining of severe pain in the right lumbar region, radiating to the right groin and across the upper abdomen. This condition came on suddenly eight hours before, during which time he vomited twice. Temperature was 98.2 Fahrenheit, pulse 82 per minute, and respirations 18 per minute.

Physical examination revealed a muscular, ruddy male, who was unable to lie still because of the severe pain. He was moderately tender over the right kidney, but the kidney could not be palpated. Palpation of the abdomen revealed moderate, guarded rigidity over the entire abdomen, but there were no areas of tenderness, although he said he felt "sore" over the entire upper abdomen. There was no frequency or dysuria and no hematuria was noted. He had taken two enemata during the night without relief. A diagnosis of right ureteral colic was made, and he was given 0.030 gram (one-half grain) of morphin sulphate hypodermically. He was again seen twelve hours later. He had obtained no relief from the previous hypodermic. Symptoms and physical findings were identical with the previous examination. There was no abdominal tenderness. The urine was normal except for an occasional pus cell. The blood picture at that time showed 94 per cent hemoglobin (Sahli), 4,600,000 red blood cells, and 6,200 white blood cells, with a normal differential count. He was again given 0.030 gram (one-half grain) of morphin hypodermically. When he was seen the next morning (thirty-two hours after the onset), he still had obtained no relief from the pain although he had taken five tablets of pantopon by mouth, each containing 0.020 gram (one-third grain).

Temperature was 99 degrees Fahrenheit, and pulse 78. The urine was normal and was negative for blood, both chemically and microscopically. He was still moderately tender over the right kidney, but at no time did he complain of pain or tenderness over the right lower quadrant. A plain x-ray (Fig. 1) was taken of the abdomen, and revealed a huge calculus in the right upper part of the true pelvis at the lower margin of the sacro-iliac joint. An enormous amount of gas was seen to distend the bowels. This latter finding was peculiar, as the patient's abdomen was almost scaphoid. The large amount of gas confused the diagnosis since, although the calculus had all the characteristics of a large ureteral stone, the possibility of a large calculus, probably a gall-stone, obstructing the bowel was taken into consideration. He was treated conservatively, and twenty-four hours later, following an enema and an injection of prostigmin, another plain film was taken. The roentgen findings were identical. His symptoms and physical findings were the same. Temperature was normal and urinalysis was entirely negative. Intravenous pyelography was then performed. Films taken five minutes after the injection of the dye showed the calculus in the same position, the right kidney seemed enlarged, and no dye could be seen in the right kidney pelvis, although dye showed in the left kidney pelvis. Another film (Fig. 2) was taken fifteen minutes after the injection of the dye. The dye was plainly visible in the left kidney pelvis. No dye could be seen in the right kidney pelvis, and the right kidney seemed greatly enlarged. A diagnosis of calculus of the lower third of the right ureter with hydronephrosis was made.

Because of the clear-cut findings of intravenous urography, it was not deemed necessary to perform retrograde catheterization of the right ureter. But as later events proved, such a procedure would probably have changed the diagnosis.

Operation.—Operation was performed fifty-six hours after the onset of symptoms, under spinal anesthesia. A midline surprapubic incision was made, the peritoneal fold was retracted upward, and the right ureter was exposed in its lower third. No calculus was found. The peritoneal cavity was then opened. The peritoneum itself and the intestines appeared normal. The appendix was easily brought out into the wound. It was lying free and the large size of its proximal end, together with its firm consistency, immediately revealed that the calculus was lying within the lumen of the appendix. The distal end of the appendix was firm but not acutely inflamed. The appendix was easily removed in the usual fashion. An x-ray film (Fig. 3) of the specimen, taken immediately, showed the identical calcified shadow as in the pictures taken preoperatively. The anterior abdominal wall was closed in the usual manner. Convalescence was uneventful, the patient leaving the hospital on the tenth postoperative day and returning to his usual occupation in six weeks.

Grossly, the entire proximal half of the appendix was filled by the calculus (Fig. 4). The serosa over the calculus was smooth and blanched, while in its distal half it contained a few dilated vessels. Nowhere was there any evidence of an acute inflammatory reaction. When the appendix was opened the entire wall around the calculus was greatly thickened and felt like cartilage. The stone was easily extracted and the mucosa throughout the entire organ was thickened, but normal.

The calculus (Fig. 5) measured 1 by 2 by 2½ centimeters and weighed 6.9 grams. The surface was grayish brown and was marked by many small nodules from pinhead to small pea in size.

CONCLUSIONS

1. From a search of the literature it appears that this is the third largest appendiceal calculus on record, being surpassed by that of Bunch and Adcock and that of Packard.

2. Possibility of extraureteral calculi must be considered in all calcified shadows in the region of the ureters.

3. Reliance on intravenous urography alone will frequently lead to erroneous conclusions, and all such suspicious shadows should have roentgenograms made in the lateral position, with the opaque ureteral catheter in place.

4. Foreign bodies may be present in the appendix for considerable time without causing acute inflammatory changes in that organ.

310 West Willow Street.

REFERENCES

1. Wangensteen, O. H., and Bowers, W. F.: Significance of Obstructive Factor in Genesis of Acute Appendicitis: Experimental Study, Arch. Surg., 34:496-526 (March), 1937.

2. Mitchell, James F.: The Presence of Foreign Bodies in the Vermiform Appendix, with Especial Reference to Pointed Bodies, Bull. Johns Hopkins Hosp., Vol. 10, No. 94 (Jan.), 1899.

3. Bunch, G. H., and Adcock, D. F.: Giant Faceted Calculus of Appendix, Ann. Surg., 109:143-146 (Jan.), 1939.

4. Royster, H. A.: Appendicitis. D. Appleton & Co., 44, 1927.

5. Packard: Boston M. and S. Jour., 186:656, 1921.

6. Douglas, John, and LeWald, Leon T.: Fecal Concretions of the Appendix Demonstrable by the Roentgen Ray, Jour. A. M. A., Vol. 66, No. 25, p. 1916 (June 17), 1916.

7. Phahler and Stamm: Diagnosis of Enteroliths by Means of the Roentgen Ray, Surg., Gynec., and Obst., 21:14, 1915.

8. Case: Roentgenological meeting at Detroit, February 5, 1916.

9. Seelig: Surg., Gynec., and Obst., 7:485, 1908.

10. Eastmond, Charles: Meeting of the New York Roentgen Ray Soc., February 12, 1916.

OPERATIVE-SUPPORTIVE TREATMENT OF VARICOSE ULCERS*

By R. STANTON SHERMAN, M. D.
AND
M. LAURENCE MONTGOMERY, M. D.
San Francisco

ALTHOUGH the treatment of varicose ulcer has received a great deal of attention from the profession, our experience has led us to believe that many physicians are not as yet fully acquainted with the methods for successful healing which are available, nor with the anatomical and physiological principles upon which these procedures are based. We still see, for example, the application of salves and antiseptic preparations to the ulcer, apparently on the assumption that the etiologic factor is infectious or inflammatory in nature. Moreover, we frequently find patients who have been insufficiently benefited by injection and surgical procedures which have been applied without a full realization of the principles involved. Indeed, at certain stages in the development of our own technique we have been guilty of some of these faults.

It is our purpose, therefore, to describe in this paper the anomalies which are responsible for ulcer formation and to present a type of therapy, designed to correct them, which has been quite successful in our hands. The methods are not original with us, except for certain individualized adaptations.

ETIOLOGY

The various theories of etiology will not be discussed here, since they have been described fully by others.[1-5] We wish only to point out, first, that the end-result is a valvular incompetence which is associated with reflux blood flow and an increase in the venous blood pressure in the superficial or deep venous systems; and, second, that the increase in venous pressure tends to reduce, and in certain circumstances actually to neutralize, the osmotic pressure of the blood colloids whose purpose is to draw tissue fluid into the venous capillaries. As a result, fluid is retained in the tissue spaces and may give rise either to localized edema, cell death, and ulcer formation, or to the diffuse edema, erythema, and scaly skin which has been called "varicose eczema." The incompetency most often seen involves the valve of the long saphenous vein located just distal to the sapheno-femoral junction. Incompetency may also be present in the short saphenous, or the thigh or lower leg perforator veins. Usually it is observed singly, although more than one vein may be involved. When this occurs it may be difficult, or even impossible, to discover all of the points of leakage. In such cases the treatment of the varices is raised from the level of a simple procedure to that of a complex diagnostic and therapeutic problem.

EXAMINATION

The patient is questioned for evidence of diabetes, thrombophlebitis (past or present), hereditary varicosis, and recurring ulceration. The state of the general and peripheral arterial circulation is studied, and the veins are tested for valvular incompetencies and for patency of the deep venous system. The former are determined by the multiple tourniquet method, and the latter by a modification of the von Perthe test. These procedures are well known and need not be described here.

TREATMENT

Successful treatment is directed toward correcting the defects in normal function. It comprises, first, the interruption of the reflux or "private circulation" in the superficial venous system; second, the obliteration of the long stretches of ineffectively valved, superficial venous channels; and, third, the rapid elimination of edema and induration. The first of these is accomplished by operation, the second by the injection of sclerosing solutions, and the third by proper support.

* From the Division of Surgery of the University of California Medical School.

Read before the Section on General Surgery of the California Medical Association at the sixty-ninth annual session at Coronado, May 6–9, 1940.

TABLE 1.—*Nature of Cases and Results*

	Number of Cases	Average Size of Ulcer	Healing Time (Average)	Recurrences	
				Number	Per Cent
Thrombophlebitis	16	27 square centimeters	32 days	1	6.2
No thrombophlebitis	61	14 square centimeters	30 days	4	6.5

In general, the operative treatment consists of ligation of the incompetent perforator veins and their tributaries at the connection with the deep system. In the case of the long and short saphenous veins, this treatment includes, first, ligation and division of the affected vessel at its junction with the femoral or popliteal vein, respectively; second, ligation and division of all of the branches of the superficial vein within 3 to 4 centimeters of the anastomosis; and, third, excision of 5 to 10 centimeters of the proximal portion of the main superficial vein. This form of surgical treatment can be used in patients who have recovered completely from a femoral or iliac thrombophlebitis if incompetencies in the superficial veins are causing trouble and if the deep veins are patent.

Recently, Linton and Keeley[6] have added to our procedures a method for the ligation, at a single operation, of large numbers of the perforator veins of the medial or lateral side of the lower leg. It gives promise of yielding useful results, whenever the valves of these veins are incompetent.

Steps in Treatment.—The injection treatment comprises, first, a preliminary intravenous test of the sensitivity of the patient, with one-half cubic centimeter of the drug to be used; second, the introduction of from 2 to 4 cubic centimeters of a sclerosing solution* into the distal end of the long or short saphenous vein at the time of the operation by needle or ureteral catheter attached to the syringe; and, third, the occlusion of any remaining patent varices at subsequent office or clinic visits.

Supportive Treatment.—The supportive treatment is perhaps the most spectacular part of the entire procedure, and it is the one we wish to emphasize, since it is possible by this method alone rapidly to heal an ulcer which has persisted for months or years under the conventional treatment with salves, skin grafts, and so-called bed rest. It is particularly important because it allows the patient to be up and about, and often at work while the ulcer heals. As employed by us, it consists of the following steps: first, the judicious application of 10 per cent $AgNO_3$ to the skin and ulcer surface to control tinea; second, a covering of adhesive tape directly over the ulcer; third, a layer of cotton from toes to knee to protect the skin from irritation by the adhesive tape; fourth, a soft sponge rubber pad, one-quarter to one-half inch thick, over the ulcer and the surrounding indurated area; fifth, a gauze bandage wrapping to hold the cotton and sponge in place; sixth, a firm adhesive tape strapping.

The application of the adhesive support requires great care. Except in the presence of reduced arterial circulation it should be put over the ulcer, and the indurated and the edematous areas, with all the force at the command of the operator. Spectators have remarked that it is surprising the leg will stand the degree of pressure used. At the same time the tape must be applied smoothly and in such a manner that band-like compressions are not created over the dorsum of the foot or the Achilles tendon. The former is prevented by placing the adhesive obliquely across the foot while the foot is in marked dorsiflexion; the latter, by padding the tendon with cotton. The steps which are used in applying the adhesive tape are as follows: a circular band of three-inch tape is wrapped about the ankle a little above the malleoli with full force. This is the anchoring layer. Then a stirrup-like piece of three-inch tape is put around the sole of the foot and attached firmly on both sides to the anchor. A two-inch piece of adhesive is now placed distal to the anchor so as to overlap the latter by about one inch, with the loop around the Achilles tendon. With the foot in dorsiflexion the ends of the adhesive tape are then crossed obliquely and anteriorly over the dorsum. Three-inch adhesive is now applied firmly to the remainder of the dorsum and sole of the foot, as far as, but not covering, the first and fifth metatarsophalangeal joints. The encasement of the foot is not accomplished with the same force that is used on the leg, since the foot is rarely the seat of any edema. This procedure is intended to prevent swelling from developing in the foot as a result of the application of the strapping to the higher levels.

When the foot is covered, overlapping circular layers of three-inch adhesive tape are placed around the leg from the anchor to a point a little below the tibial tubercle. They are applied with full force. The top layer is attached to the skin for a width of about one inch above the top of the cotton layer. This holds the adhesive to the leg and prevents downward slipping. It is particularly important in persons with sloping lower legs.

Occasionally a patient's skin is so sensitive to adhesive that this support cannot be used even with the cotton protection. Under these circumstances two four-inch ACE bandages are used in place of the adhesive tape and are sewed together to prevent slipping.

At first the supportive dressing is changed two or three times weekly if the drainage is considerable. Then it may be changed only once weekly until the ulcer is well healed, and the skin becomes firm. Finally, a regimen of "decompression" is

* Author's Note.—All known types of sclerosing solutions have been tested by one of us (R. S. S.), including the salts, the sugars, sodium salicylate, quinin hydrochlorid, urethane, and the soaps. At present we prefer monolate (monoethanolamin oleate), sylnasol (sodium psylliate), and monoethanolamin morrhuate.

undertaken, which consists, first, of eliminating the sponge; second, of testing without support; third, of eliminating all support when possible or of substituting an elastic stocking if continued support is necessary.

The methods used are approximately the same whether the ulcer is associated with simple saphenous incompetence or with incompetence following a femoral thrombophlebitis, except that in the latter instance continuous support is the rule.

Occasionally, when the ulcer is large, pinch grafts are used to hasten healing. No change in the general treatment is necessary to insure a high percentage of "takes," except that the silver nitrate solution is withheld from the granulations, and the adhesive covering of the ulcer is applied carefully so as not to disturb the transplants.

RESULTS

Seventy-seven patients with ulcer have been treated during the past two years. Sixteen of these developed the lesion following a femoral thrombophlebitis. Two of the patients with saphenous-system ulcers had advanced arteriosclerotic obstruction in the leg vessels. They healed very satisfactorily. It should be noted, however, that much less pressure was used on these patients than on those whose arterial circulation was adequate. The table presents briefly the data on size of lesion, rate of healing, and recurrence. The recurrences were initiated by trauma to the skin over the healed ulcer. As a rule, a period of decompression of from two to four weeks was required. All of the patients with thrombophlebitic ulcers and several of those with simple saphenous vein ulcers required prolonged elastic stocking support because of persistent edema.

In general, the condition of the patients following the combined treatment gives promise of more lasting results than have been obtained by any other measures which we have used.

SUMMARY

1. Seventy-seven patients with varicose ulcer have been treated during the past two years with the combined operative-injective-supportive procedure.

2. The method has very materially improved the results in the care of varicose ulcers, and it permits the patient to be ambulatory.

3. The average rate of healing was from thirty to thirty-two days.

4. Some patients required prolonged support because of persistent edema.

5. When the case is properly selected and carefully treated, advanced arterial insufficiency is not a contraindication to the use of supportive therapy.

6. Sufficient time has not yet elapsed to permit a decisive opinion to be given concerning the long-term effects of this form of therapy, although the results which have been obtained are very favorable.

516 Sutter Street.

REFERENCES

1. Warwick, W. Turner: The Rational Treatment of Varicose Veins and Varicocele. London, Faber & Faber, 1931.

2. Franklin, Kenneth J.: A Monograph on Veins. Charles C. Thojas, 1937.

3. De Takats, G., and Quint, H.: Injection Treatment of Varicose Veins, Surg., Gynec., and Obst., 50:545-561 (March), 1930.

4. McPheeters, H. O., and Anderson, J. K.: Injection Treatment of Varicose Veins and Hemorrhoids. Philadelphia: F. A. Davis, 1938.

5. Ochsner, Alton, and Mahorner, Howard: Varicose Veins. C. V. Mosby Company, 1939.

6. Linton, R. R., and Keeley, J. K.: Postphlebitic Varicose Ulcer: Surgical Treatment, with Special Reference to Communicating Veins of Lower Leg, Am. Heart J., 17:27-39 (Jan.), 1939.

RÔLE OF CAUDA EQUINA LESIONS IN THE PRODUCTION OF CONSTIPATION AND URINARY RETENTION*

By WILLIAM C. BOECK, M. D.
Los Angeles

CONSTIPATION is difficult of definition but it is generally agreed that there should be one bulky and formed evacuation daily as a criterion of normal colonic function. We have looked upon constipation as of two varieties, (1) *atonic*, because of the presence of abnormal dilatation and redundancies of the colon often associated with large or absent haustrations and (2) *spastic*, because of the presence of an irritable colon, with spasm of some of its portions and often showing small, poorly developed and irregularly shaped haustrations. That both of these states have been cured by attention to the establishment of a proper diet, fluid intake, regular habits of eating and personal hygiene, and by regular and daily forms of exercise, no one will deny. However, since some of these cases are benefited by certain drugs, such as, the atropin group, phenobarbital, pituitrin, prostigmin and others, leads to the conclusion that a neurogenic factor is also involved in the production of constipation as these drugs act upon the sympathetic and parasympathetic extrinsic nerve supply to the colon and its sphincters. This effect of drugs may be on the nerve endings in the viscus, as for example atropin, or upon the higher autonomic centers in the hypothalamus, as illustrated by the effect of phenobarbital.

The neurogenic disturbance appears to be only functional in most of the cases of constipation but one may encounter other cases which suggest the possibility of a spinal cord lesion as being responsible for the constipation. The first evidence of this was furnished by Royle[1] in 1924, who announced a new operative procedure for the relief of spastic paralysis of the lower limbs consisting of ramisectomy of the white rami to lumbar sympathetic ganglia, following which he noted that certain of his patients were relieved of constipation.

Later Wade[2] designed an operation in which he cut, on the left side, the white rami to the first and second lumbar ganglia, as well as the visceral branches of the lumbar sympathetic chain, and finally severed the sympathetic trunk below the

* Read before the Section on Neuropsychiatry at the sixty-ninth annual session of the California Medical Association, Coronado, May 6-9, 1940.

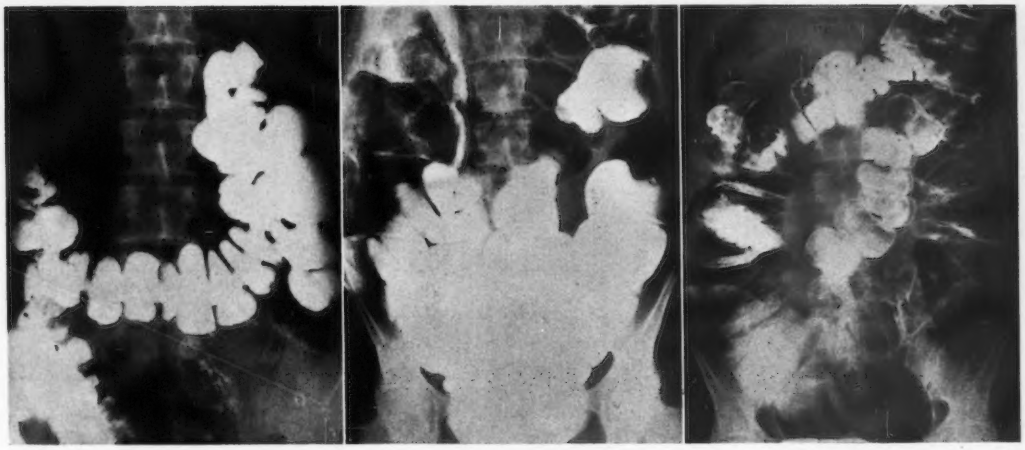


Fig. 1 Fig. 2 Fig. 3

Fig. 1.—Barium filled colon in 1934, showing essentially a normal colon.
Fig. 2.—Barium enema on March 17, 1939, revealing large loops of megacolon.
Fig. 3.—Twenty-four hours after barium enema on March 17, 1939, showing megacolon and redundancies.

fourth lumbar ganglion. This operation was performed on cases of idiopathic megacolon, or Hirschsprung's disease, with remarkable improvement in bowel function and disappearance of stubborn constipation. Thus, proof was given that dilatation of the colon with constipation appeared to be due to an overbalance or domination of the sympathetic nerve supply to the colon.

NEURO-ANATOMY

On this occasion, there is insufficient time to describe the autonomic extrinsic nerve supply to the colon, bladder and reproductive organs, but one may refer to a paper by Trumble[3] and others quoted in this paper for a complete description and presentation of the neuro-anatomy of the lower abdominal viscera.

PHYSIOLOGY

The action of the sympathetic and parasympathetic nerve supply is diametrically opposite in character. When the sympathetic nerves are stimulated, a contraction of the sphincters of the rectum and bladder and a dilatation of the walls of these organs take place. If the parasympathetic nerves are stimulated, an opposite effect occurs, *i. e.*, relaxation of the sphincters and a contraction of the walls. The action of the sympathetics is "filling" and that of the parasympathetics is "emptying." Both of these systems have their fibers ending in the muscular wall of each viscus, and in the case of the colon they end in Auerbach's plexuses without which peristalsis could not occur. Some fibers end in Meissner's plexuses which lie in the submucosa and control the mucous secretion of the bowel.

In regard to the reproductive organs of the female, it is stated that stimulation of the sympathetic fibers causes the contraction of the fibers of the cervix (internal os) and relaxation of the uterine walls; whereas, the parasympathetics when stimulated cause relaxation of the sphincteric action of the cervix and contraction of the uterine body muscles. Again, we note the "filling" or retention action of the sympathetics and the detrusor or "emptying" action of the parasympathetics, as in the bladder and rectum.

The sympathetic nerve supply is also responsible for vasoconstriction of the blood vessels of the internal pelvic organs as well as the extremities and for activation of the sweat glands. Their excision results in increased blood supply to the pelvic viscera and increased warmth and dryness of the feet from vasodilatation and inhibition of the sweat glands.

PATHOPHYSIOLOGY

In a healthy individual enjoying normal bowel and bladder function, and if a female without primary dysmenorrhea, a balance in function is believed to be maintained between the action of the sympathetic and the parasympathetic fibers. There are, however, individuals in whom this balance is upset, and abnormal or pathophysiologic reflexes occur which produce abnormal physiologic states with resultant functional disturbances in the pelvic viscera.

Certain disturbances of bladder and colon function may be considered together because of their frequent association, and because of their identical autonomic nerve supply.

The lumbar sympathetic fibers are responsible for the "filling" or retention action of both these viscera, while the sacral parsympathetic fibers cause the "emptying" of these organs. Therefore, an unusual dilatation of the colon and bladder, producing chronic constipation and urinary retention, may be looked upon as due to either (*a*) constant stimulation of the sympathetic fibers or (*b*) decreased action of the parasympathetic system. The net result being an overbalance or domination of the lumbar sympathetic nerve supply. When the reverse state of disturbance occurs, producing diarrhea, in the absence of any intrinsic gastrointestinal pathology, and frequency of urination, a domination of parasympathetic action may be

Fig. 4a

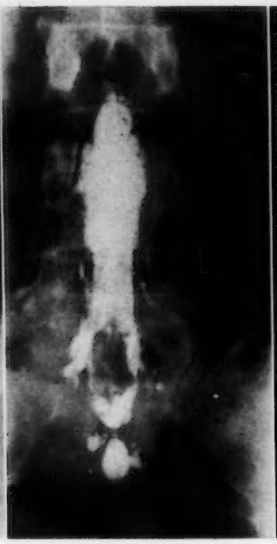


Fig. 4b

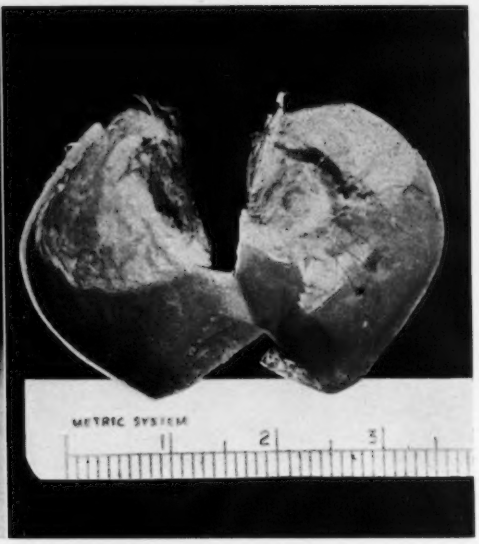


Fig. 5

Fig. 4.—(*a*) Filling defect in cul-de-sac after lipiodol injection in the spinal canal; (*b*) with patient in Trendelenburg position, showing retention of the oil in the cul-de-sac.

Fig. 5.—Cystic mass with fibro-areolar tissue removed from cul-de-sac.

hypothecated, but such cases are not as yet clinically differentiated unless, as I believe, some cases of so-called neurogenic diarrhea and urinary frequency represent such examples. Such cases, however, appear to represent a disturbance in the activity of the higher autonomic centers in the hypothalamus. However, in man there are well-recognized instances of bladder and colonic disturbance that are due to an overbalance of sympathetic action and many of them, with the probable exception of Hirschsprung's disease, appear to be explained upon a decrease in parasympathetic action due to some lesion of the conus or cauda equina, which follows either trauma, infection, congenital defect, or pressure exerted by fibrous, cartilaginous or bony structures and tumors.

MEGACOLON AND CONSTIPATION

Cases of megacolon with constipation, whether of the congenital or acquired type, associated with or without atony of the bladder, producing urinary retention, are the clinical conditions that are believed due to a domination of lumbar sympathetic action. That this is true seems substantiated by the success of lumbar sympathectomy, for constipation is improved or cured, the urinary retention also disappears, and the colon and bladder tend to return to normal size.

Most cases of lumbar sympathectomy have been done on cases of congenital megacolon, known as Hirschsprung's disease, and the results have been very successful, but it is not necessary here to review the many contributions which have definitely established that lumbar sympathectomy is the indicated operation in all cases of Hirschsprung's disease.

The success of the operation in cases of Hirschsprung's disease led to its trial in cases of acquired megacolon which are usually encountered in middle-aged people, as compared with congenital megacolon which appears almost exclusively in children. Many of the cases of acquired megacolon received as much benefit from the operation as did the congenital cases, while others were somewhat improved and some none at all.

Rankin and Learmonth [4] reported improvement in their cases of acquired megacolon, but not as remarkable as in the congenital cases operated upon. Ross [5] reported seven failures out of fifteen cases of acquired megacolon so operated. Gask and Ross [6] reported three out of twelve cases operated upon for acquired megacolon as cured, improvement occurred in three others, but six received no benefit.

It should be stated for the sake of fairness of statistics that all these cases reported did not have much dilatation (megacolon), but only constipation. Gask and Ross substantiated the earlier observation of Wade, that unless dilatation of the colon is a prominent feature in the cases of constipation, lumbar sympathectomy is apt not to be a success in establishing normal colonic function. In these cases any tendency to urinary retention is also corrected.

As a guide, therefore, in the selection of cases of constipation for which lumbar sympathectomy is indicated, there must be definite evidence of megacolon established by x-ray investigation, if one wishes to have success in curing constipation and the return of the colon to almost its normal size.

ATONIC BLADDER AND URINARY RETENTION

Urinary retention, according to Adamson and Aird,[7] is associated with megacolon in 5 per cent of the cases: But they believe that the evidence of association is much higher since most investigators of megacolon do not make any urological study for

residual urine. It might also be said that many cases of cord bladder occur and no study is made to learn if a megacolon exists, even though the patient complains of stubborn constipation.

These cases of cord bladder, occurring alone or associated with megacolon, may, as already stated, result from a lesion of the cauda equina, causing overbalance of the sympathetic nerve supply to the bladder, and its excision by lumbar sympathectomy restores normal bladder function.

Learmonth,[8] in 1931, reported two such cases, with very good results, from resection of the presacral plexus. Later Adson,[9] in 1933, reported success in six out of eight cases, and Foulds,[10] Bailey,[11] Fulcher,[12] and Abbott[13] have reported similar successes.

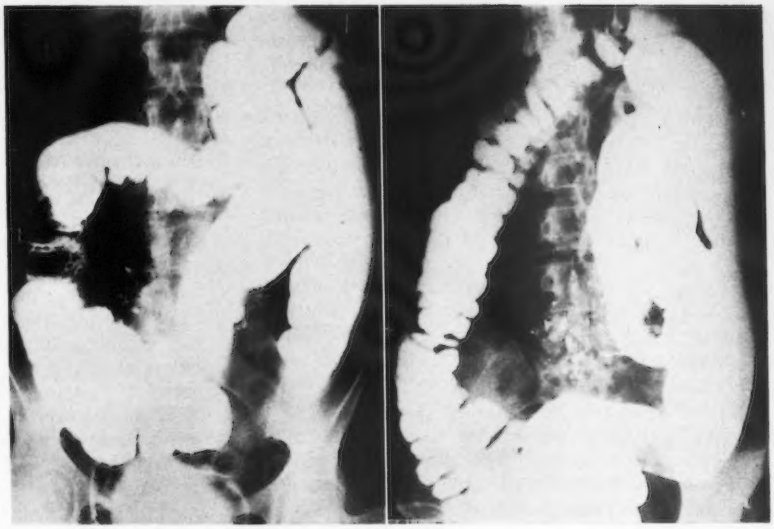


Fig. 6 Fig. 7

Fig. 6.—X-ray of colon on December 9, 1939, after barium enema, showing decrease in calibre and length, and presence of long redundancy of the sigmoid.

Fig. 7.—X-ray of colon on April 8, 1940, nine months after lumbar sympathectomy, showing absence of long redundant sigmoid, normal calibre, but redundant loop of descending colon.

According to Learmonth, sympathectomy for the relief of cord bladder, producing urinary retention, is indicated when the four following conditions are present:

1. Clinical data must point to a reduction of the function of the parasympathetic nerves, while there must be no injury of the sympathetic (presacral) nerves.

2. There must not be total paralysis of the parasympathetic nerves, in order that after removal of the sympathetic supply the residual emptying power of the detrusor muscle may be more equal than before to emptying the bladder.

3. The patient must be continent, through the action of the external sphincter muscle (supplied by the pudendal nerve) as the presacral nerves are the motor nerves to the internal sphincter.

4. Finally, there must be satisfactory renal function.

Therefore, these conditions for the bladder, together with that of dilatation for the colon, should govern one in his selection of cases that may have their constipation and urinary retention either cured or greatly improved by the operation of lumbar sympathectomy.

Since these cases are not very common, it seems worth while to present such a case in which these conditions were present, which were produced by a lesion in the conus; a lumbar sympathectomy restored normal function, to both the colon and the bladder, and the colon returned to almost its former normal size.

Case History.—A white female, 42, a school teacher, suffered from stubborn constipation, requiring daily enemas and laxatives for relief. In 1934, an x-ray of the colon was essentially normal. Marked abdominal distention, with obstructive symptoms, often occurred. She was brought to the hospital on March 13, 1939, by Dr. Conrad Baumgartner of Los Angeles, for obstruction, which, however, responded to enemas after two days of treatment. X-ray on March 17, 1939, revealed a megacolon and no organic obstructive lesion.

I saw the patient on March 21, 1939, and urinary retention was also discovered—as much as 1,300 cubic centimeters of residual urine was found. Cystoscopic examination revealed a large atonic bladder and normal sensation. A lesion of the cauda equina, producing impairment of the parasympathetic nerve supply to the colon and bladder was hypothecated. A neurological and spinal fluid examination by Dr. John B. Doyle, revealed nothing abnormal, but he recommended lumbar sympathectomy to help, or cure the constipation and urinary retention. On June 26, 1939, Dr. R. B. Raney made a lipiodol injection of the spine and a filling defect in the spinal culdesac was found.

It was felt that this lesion accounted for the visceral disturbances. On June 29, 1939, a laminectomy of the fourth and fifth lumbar vertebrae and sacrum was done by Doctor Raney, and a cystic mass, three centimeters in diameter, containing fibro-areolar tissue and atrophied nerves was removed. The sacral nerves on the right side were atrophied and were freed from the constricted portion of the dura. The lesion was considered a probable congenital anomaly.

On July 25, 1939, a lumbar sympathectomy was performed by Doctor Raney, removing the second, third, and fourth lumbar ganglia of each side and the presacral plexus of nerves. Bladder and colonic function gradually improved, and when discharged home on October 18, 1939, there was no residual

urine and the bowels moved each day by means of a rough diet and one tablespoonful of a mixture composed of equal parts of mineral oil and milk of magnesia.

A check-up x-ray of the colon by barium enema on December 9, 1939, showed an almost normal ascending, transverse and descending colon, but a long, somewhat dilated redundant loop of sigmoid. Another x-ray of the colon (nine months after lumbar sympathectomy) was done on April 8, 1940, which showed that the long redundant loop of sigmoid colon had vanished, but another smaller loop was present at the splenic flexure. The remaining colon appeared normal except for some slight dilatation of the sigmoid. The patient continues to enjoy normal colonic and bladder function, and feels very well.

Here, then, is an example of a case of obstinate constipation and urinary retention that was due to a lesion of the conus portion of the spinal cord in which there were no motor or sensory disturbances present that pointed to the existence of a cord lesion—it was only discovered by lipiodol injection. The patient was cured by excision of the lumbar sympathetic nerve fibers.

Another such case of megacolon with constipation and urinary retention which was due to a gun-shot lesion of the cauda equina was reported by Fearnsides,[14] and it necessitated opening of the abdomen to relieve intestinal obstruction.

While it is not the primary purpose of this paper to discuss the etiology and treatment of primary dysmenorrhea, I believe it is worthy of some remarks, since its cure has been obtained by lumbar sympathectomy, and because, in many of these operated cases, much improvement has also been noted in colonic function with less tendency to constipation, even though a megacolon did not exist.

Cotte,[15] first, in 1925, and later many other gynecologists, have shown that this condition is relieved by presacral neurectomy. Cotte[16] lately reported three hundred of such cases favorably operated upon, and in this country Fontaine and Herrmann,[17] Counsellor and Craig,[18] Adson and Masson,[19] DeCourcy,[20] Abbott,[13] Collins,[21] and others have reported smaller series of cases of dysmenorrhea relieved by this operation.

As an etiologic explanation of primary dysmenorrhea, it is believed that it results from either abnormal reflexes in the nerve supply to the uterus or from vasomotor spasm from some circulatory disturbance. As yet it has not been ascertained that any spinal cord lesion is responsible for the disturbance, yet it is quite possible because of the association of dysmenorrhea with megacolon and dilated bladder and because of their identical extrinsic nerve supply. Such a case was reported by Abbott[13] in which megacolon, urinary retention with dilated bladder, primary dysmenorrhea and Raynaud's disease of the feet were present. No spinal cord lesion was discovered, although no lipiodol or air injection of the spinal cord was made. Lumbar sympathectomy cured all of these four conditions.

By excising the fibers of the presacral plexus, one produces (1) vasodilatation in the uterus and broad ligament, (2) stronger detrusor or emptying of the uterus from increased parasympathetic action, and (3) interruption of afferent pain stimuli from the uterus to the lumbar spinal cord. All of these results may explain the relief from dysmenorrhea by lumbar sympathectomy.

COMMENT

It must now be recognized that the rôle of the extrinsic nerve supply to the pelvic viscera, namely, the colon, bladder, and reproductive organs, is important in explaining the presence of megacolon, atonic bladder, and dysmenorrhea. These conditions appear to be due to an overbalance of sympathetic nerve function over that of the parasympathetic supply. It is probable, with the possible exception of primary dysmenorrhea, that megacolon and atonic bladder is often due to a lesion of the cauda equina or conus. It may occur in the absence of sensory or motor changes, and only be revealed by a spinal cord injection of lipiodol, as illustrated by the case reported in this paper. When sensory and motor disturbances occur which indicate a lesion of the conus or cauda equina, then lipiodol injection is unnecessary. It should be emphasized that whenever such a lesion is discovered an attempt should be made to remove it before it causes complete destruction of the parasympathetic fibers with paralysis of the bladder and colon, when lumbar sympathectomy will do little or no good, and death will occur eventually from almost inevitable urinary tract infection.

SUMMARY

Another case of megacolon and cord bladder is reported which was due to a probable congenital lesion of the conus culdesac. This spinal cord lesion produced pressure on the parasympathetic sacral fibers, diminishing their function, thus resulting in an overbalance of lumbar sympathetic function and the production of cord bladder and megacolon. The patient was cured by lumbar sympathectomy following the removal of the spinal cord lesion, with the result that colonic and bladder function have been restored to normal, and the size of the colon to almost its former proportions.

2210 West Third Street.

REFERENCES

1. Royle, N. D.: A New Operative Procedure in the Treatment of Spastic Paralysis, and Its Experimental Basis, Med. Jour. Australia, 1:70, 1924.

2. Wade, R. B., and Royle, N. D.: Operative Treatment of Hirschsprung's Disease, New Method: with Explanation of the Technic and Results of Operation, Med. Jour. Australia, 1:137-141, 1927.

3. Trumble, H. C.: The Innervation and Muscular Activities of the Distal Colon: with a Note on the Surgical Treatment of Constipation, Brit. Jour. Surg., 23:214-230, 1935.

4. Rankin, F. W., and Learmonth, J. R.: The Present Status of the Treatment of Hirschsprung's Disease, Amer. Jour. Surg., 15:219-227 (Feb.), 1932.

5. Ross, J. P.: The Results of Sympathectomy—An Analysis of the Cases Reported by the Fellows of the Association of Surgeons, Brit. Jour. Surg., 23:433, 1935.

6. Gask, G. E., and Ross, J. P.: Surgery of the Sympathetic Nervous System, Wm. Wood & Co., Baltimore, 2nd Ed., 1-191, 1937.

7. Adamson, W. A. D., and Aird, I.: Megacolon: Evidence in Favor of a Neurogenic Origin, Brit. Jour. Surg., 20:220, 1932.

8. Learmonth, J. R.: Neurosurgery in the Treatment of Diseases of the Urinary Bladder. III. The Treatment of Certain Types of Vesicle Paralysis, Jour. of Urology, 26:229-232, 1931.

9. Adson, A. W.: Results of Sympathectomy in Treatment of Peripheral Vascular Diseases, Hirschsprung's Disease and Cord Bladder, Ann. Int. Med., 6:1044-1068, 1933.

10. Foulds, G. S.: Resection of the Presacral Nerve in Urologic Cases (Case of Cord Bladder), Brit. Jour. Surg., 20:139-144 (July), 1932.

11. Bailey, H.: Treatment of paresis of the Bladder by Resection of the Presacral Nerve, Practitioner, 130:505-507, 1933.

12. Fulcher, O. H.: Presacral Neurectomy for Certain Vesical Conditions, West Virginia Med. Jour., 31:3-8 (Oct.), 1935.

13. Abbott, W. D.: Presacral Neurectomy in Treatment of Certain Pelvic, Bladder and Bowel Conditions, Amer. Jour. Surg., 37:244-255 (Aug.), 1937.

14. Fearnsides, E. G.: Gunshot Wound of the Lumbar Spine; Injury to the Pelvic Autonomic Nerves; Paralysis of the Large Intestine and Rectum; Recurrent Attacks of "Intestinal Obstructions," Proc. Roy. Soc. Med., London, IX Neurol. Sect., 32-37, 1915-1916.

15. Cotte, Gaston: La Sympathectomie Hypogastrique a-t-elle Sa Place Dans le Therapeutique Gynecologique? Presse Méd., 33:98, 1925.

16. Cotte, Gaston: Resection of Presacral Nerve in Treatment of Obstinate Dysmenorrhea, Am. Jour. Obst. and Gynec., 33:1034, 1937.

17. Fontaine, R., and Herrmann, L. G.: Clinical and Experimental Basis for Surgery of the Pelvic Sympathetic Nerves in Gynecology, Surg. Gynec. and Obst., 54:133-163 (Feb.), 1932.

18. Counsellor, V. S., and Craig, W. McK.: The Treatment of Dysmenorrhea by Resection of the Presacral Sympathetic Nerves: Evaluation of End Results, Am. Jour. Obst. and Gynec., 28:161 (Aug.), 1934.

19. Adson, A. W., and Masson, J. C.: Dysmenorrhea Relieved by Resection of Presacral Sympathetic Nerves, J. A. M. A., 102:986-990 (March 31), 1934.

20. DeCourcy, J. L.: Resection of the Presacral Nerve for Dysmenorrhea, Am. Jour. Surg., 23:408-412 (March), 1934.

21. Collins, C. G.: Presacral Sympathectomy, New Orleans Med. and Surg. Jour., 91:75-77 (Aug.), 1938.

CHOICE IN SULFONAMIDE DRUGS*

By LOWELL A. RANTZ, M. D.
AND
WINDSOR C. CUTTING, M. D.
San Francisco

ALTHOUGH the sulfonamide drugs have increased pleasure in the practice of clinical medicine, they have also increased its complexity. The multiplicity of these drugs is confusing, and one is sometimes at a loss to know which drug should be used in a given case. It is the purpose of this paper to clarify the problem and outline the particular indications for the different drugs, as used at present. It must be realized, however, that, since the introduction of the sulfonamides, there have been constantly changing indications for the use of these drugs, depending on better understanding of the effects of the older ones and the availability of a steady stream of new chemically related compounds. Thus, what is said today may have to be at least partially revised tomorrow.

The mode of action of all the sulfonamide drugs appears to be similar. Likewise, when one of the drugs is superior to another in one infection, it will probably be superior in all other infections as well. This leads to the conclusion that, other things being equal, there is no indication for the use of any but the strongest drug. This conclusion is not far from the truth. The principal members may be discussed in turn.

SULFANILAMIDE

This early sulfonamide compound is the best understood drug in the group, and for this reason serves as a basis by which to judge the others. From the pharmacological standpoint it is a desirable drug, since it is easily administered, well handled by the body, and excreted without difficulty, but anemia and cyanosis are exceedingly common complications associated with its use. It is, unfortunately, less effective therapeutically than other related compounds, and is being supplanted by them in the treatment of many diseases. In those conditions in which it has not been replaced, it may be merely the absence of data on the newer compounds which have allowed its retention.

The principal indications for the use of sulfanilamide at present are in diseases where its effectiveness is quite adequate to control the situation easily. Here, because it seldom causes severe toxicity, especially urinary tract involvement, and is cheap, it may be used; but in time it will undoubtedly be given up entirely in favor of other compounds. Infections with the Hemolytic streptococcus, including meningitis, erysipelas, and sepsis, meningococcus infections, Ducrey bacillus infections, urinary tract infections due to E. coli and the need for prophylaxis before operation or tooth extraction in the presence of valvular cardiac disease, may be well met with sulfanilamide. When rectal administration is desirable, this is the only sulfonamide capable of any considerable absorption. In severe infections, an initial dose of four or five grams orally is followed by a dose of one gram every four hours, night and day, in the average adult. Each dose is halved, or the medication is given only four times a day, with clinical cure, and after four or five days at this reduced level, discontinued.

Sulfanilamide has been applied locally as a powder or paste in instances of compound fracture and peritonitis with alleged satisfactory results.

Two other compounds, prontosil and neoprontosil, should also be mentioned. These were among the first members of this group to be used clinically. Both are broken down in the body to sulfanilamide, plus an inert substance, and are only as effective as an equivalent amount of sulfanilamide. There is, therefore, no indication at present for their use. If administered in comparable dosage, toxic reactions are as frequent as with sulfanilamide.

* From the Departments of Medicine and of Pharmacology, Stanford University School of Medicine, San Francisco.

SULFAPYRIDINE

Pharmacologically, this is a less desirable drug than sulfanilamide, as it is poorly absorbed, highly acetylated, and excreted with difficulty, but it is far superior in therapeutic effectiveness. Infections in which sulfanilamide is quite ineffective may be controlled by its use. This outweighs its pharmacological and toxic drawbacks, even the very troublesome nausea, and it would be a highly valued drug but for the fact that sulfathiazole is equally effective and less toxic. At present the indications for its use are narrow. In serious meningitis of any type, the superior penetration of sulfapyridine into the spinal fluid, as compared with sulfathiazole, may be valuable. However, sulfathiazole penetrates through inflamed meninges better than was previously thought, and should ordinarily be adequate. Where sensitivity to sulfathiazole is present, it may be possible to give sulfapyridine without trouble, although this is by no means invariably true.

When used, it should be given in an initial dose of two grams orally, or intravenously as the sodium salt, and followed by a one-gram dose every four hours. Urinary output should be kept above 1,500 cubic centimeter daily, to diminish the possibility of the formation of urinary calculi of acetylsulfapyridine.

SULFATHIAZOLE

This is the most important sulfonamide drug in use at present. It has a wide range of potency, and is a fairly desirable drug from the pharmacological approach, although its rapid excretion may lead to the precipitation of the drug in the urinary tract. Vomiting is seldom severe, and anemia and cyanosis are much less marked than that associated with the administration of sulfanilamide.

It is applicable wherever bacterial chemotherapy is desired, and in most situations is the preferred drug. In pneumococcus and staphylococcus infections, it is definitely the drug of choice.

Sulfathiazole is more effective than the earlier sulfonamides in the treatment of urinary tract infections caused by organisms other than E. coli. Even Streptococcus fecalis has been said to be susceptible to its action, but this is, unfortunately, not the case in most instances. This drug may be used in infections associated with the colon bacillus alone, although sulfanilamide is usually entirely adequate.

The late complications—fever, skin rash, and conjunctivitis—are more frequent and severe with sulfathiazole therapy, and its use in infections requiring treatment for more than a few days is associated with greater hazards than with the sulfonamides described above.

Treatment should be started with an initial dose of one to four grams orally, or intravenously as the sodium salt if oral medication is difficult, and followed every four hours by 1 to 1.5 grams by mouth. Urinary output should be maintained above 1,500 cubic centimeters per day.

Sulfathiazole has been less used locally as a powder or paste than sulfanilamide, but there is no reason to believe it would not be as effective as that drug when this type of therapy is indicated.

SULFAGUANIDINE

This new sulfanilamide derivative is poorly absorbed, and so a considerable amount of the drug remains in solution in the bowel. It has been suggested that it may be useful in dysentery and cholera. A few clinical tests have shown, however, that larger amounts are absorbed than was previously supposed, that dysentery bacilli are not always eliminated from the stools of chronic carriers, and that its use preoperatively before operations on the bowel is not invariably attended by a significant decrease in the number of organisms present in the feces. It is decidedly in the experimental stage.

SULFADIAZINE

This well absorbed, and apparently rather nontoxic derivative, is very promising at the moment, and may prove to be the next step in the sulfonamide ladder.

PROMIN

Although quite toxic, this drug is also highly effective experimentally. Little can be said about its future.

SUMMARY

In summary, it may be said that, just as sulfanilamide gave way to sulfapyridine, which in turn gave way to sulfathiazole as a therapeutic agent in infections, so now the latter drug may be expected to yield to still more effective drugs, as these are introduced in turn. It is also probable that drugs will be developed with special indications based on specific properties. The possible value of the poorly absorbed sulfaguanidine in enteric infections is an example of this trend.

2398 Sacramento Street.

PUBLIC HEALTH ACTIVITIES AND RESPONSIBILITIES*

By ELMER BELT, M. D.
Los Angeles

THANK you, Mr. Director, for introducing me to your radio audience.

I should like to tell them that I believe the great lesson which the world tragedy of today will hold for civilization is the now demonstrated fact that those nations who have tasted freedom regard it with greater love than the love of life itself. There has been a great deal of talk about the softening effect which the democratic way of life has had upon those who dwell within a democracy. Surely, by and large, we have had greater ease and greater security and, largely due to the fact that we have all had greater leisure, those of our citizens who have a mechanical bent or scientific insight have made the way of life better for all of us by the free exercise of their peculiar geniuses. Now we have come to trial and we are sternly standing up to the standards set for us by the founders of our republic. They risked all to give us what we have and we who have taken that talent and developed it into ten talents are ready again to protect our heritage with our lives. It is not material means

* A radio address given over KFWB on June 7, 1941.

for which we fight. Suddenly, we see clearly that ideals and ethics mean more than wealth and ease and under their banners we take our stand. Yet in this hour we look back a little ruefully along the way which we have come and wish that we had done greater things with the opportunities given us. Now that we need great strength, we can see where selfish individual motives have stood in the way of greater progress.

SELECTIVE SERVICE

The operation of the Selective Service Act is revealing the fact that of 700,000 men examined, the condition of health of these men is such that only 400,000 have been found fit for military duty. These are our youths, in the age groups of greatest physical strength, yet diseases of teeth, eyes, heart, musculoskeletal structures, ear, nose and throat, hernia, venereal disease and diseases of the lungs cause three out of seven to be rejected.

DEPARTMENTS OF PUBLIC HEALTH

Our departments of public health, with the aid of our practicing physicians, have been given powers which take two forms: the protection of the public against unsanitary environmental conditions and polluted or offensive foodstuffs, and the protection of the public against the dissemination from person to person of communicable diseases. As a result of the efforts of public health departments along these two lines, diseases which could be controlled by environmental sanitation, such as cholera, plague and typhoid, have begun to disappear from civilized communities. Bacteriological and immunological methods have made rapid progress in the control of communicable diseases like diphtheria. The establishment of organized programs for hygienic living through the slow and tedious process of education has had its effect upon the national scourge, tuberculosis. Control of infant mortality has occurred due to educational propaganda which had been learned in the campaigns against tuberculosis, and along with the growth of health education has come a desire on the part of the people for health examinations at frequent intervals in order to bring about the detection of deviations from the normal in their very earliest stages. Thus the line between preventive and curative medicine has become obscure and every physician virtually becomes, in his daily practice, more and more a hygiene advisor.

The many service organizations which characterize the American way of life have also taken on their share of the promotion of public health as one of their basic public activities and then conduct campaigns for better housing, better zoning laws, systems of transportation which open up new residential districts, better roads, connecting the rural districts with the cities, improvement in agriculture and in the handling of foods.

In the last analysis, however, it is the official health agencies which must be responsible for seeing that public health is adequately protected. In the United States the fundamental unit of health organization is the local health department of the city, town or country, which consists of a board of health, a health officer and his staff. Over the local health department stands the state department of health, which also includes a state board of health or public health council, which guides the policies, and a health commissioner and staff, which executes them. The United States Public Health Service, although a part of the Federal Security Agency, exercises essentially the functions of a Federal Department of Health. It has direct control of quarantine at the seaports and of health problems of an interstate nature, and it also serves as a guiding influence for the state departments of health, just as they in turn stimulate and guide the local health departments. Thus, there is a close correlation in the United States between the federal, state and local health departments.

COÖPERATION IS IMPORTANT

But, finally, the success of the whole structure depends upon the close coöperation in the work of public health of each practitioner of medicine. Each doctor is in fact a state epidemiologist, because the law requires that he shall report cases of communicable disease to the local health officer upon a form that is provided by the state. Without these reports no activity in the control of communicable disease can be carried out efficiently. Thus each practitioner becomes an active participant in the state's organization for the maintenance of public health, and the doctor who is a good citizen is particularly careful about the discharge of this public duty.

WORK AHEAD

While much has thus been done to reduce the epidemic diseases, there remains a great deal to be done for the health of the individual. Anxiety, uncertainty and insecurity have contributed to ill health, particularly in the field of mental illness. Of one million patients in hospitals every day of the year, 600,000 are in mental and nervous disease hospitals. In this land of ours, which has the most adequate resources in the world, there are many people who come home from work exhausted, without enough food to eat, without the right kind of food to eat, greeted by children who are undernourished. Distribution of surplus commodities, general relief from federal and state aid organizations and an abundance of free medical care have helped us through lean years, but have not been enough. In the period from December, 1917, to September, 1918, when three million men were examined for military service, 70 per cent were qualified. Now only 56 per cent are qualifying. Our general population is obviously not profiting by the available advances in medical knowledge. Is it because we cannot afford medical care ?

CALIFORNIA PHYSICIANS' SERVICE

In the State of California the doctors have created an organization which they call the California Physicians' Service. It is run and owned by the doctors themselves. By means of it hospital and doctor bills may be met by those who belong to this plan on a monthly fee basis. The doctors in

the State of California are pretty largely united in an effort to make this plan a success. You will probably find that your own favorite doctor is a member of this plan, because out of 6,600 doctors in the state society, 5,500 have joined this plan.

This organization is operated upon the insurance principle and it costs those who join it very little for the immense service given, because the only overhead is a 20 per cent operating cost. This cost is diminishing in proportion as the plan grows in size.

Three different types of policies may be had. One insures against the cost of surgical procedures only and pays the cost of surgery and hospital if a surgical procedure is found to be necessary. This contract is primarily for large industrial groups. At a less cost a policy is issued which covers hospitalization only, but hospitalization for any type of illness. The third type of policy provides full coverage for medical care and hospital costs. At present 30,000 people in our State are cared for within this plan. As the public is learning of it, the curve of growth is sharply upward. Membership is limited to employed groups of persons. However, those who have salaries in excess of $3,000 annually are not permitted to join, though many such would like to do so. The Federal Government has recently shown its approval of the plan and its confidence in it by arranging to pay part of the premium for those farm families who wish to join it and who are already under the wing of the Federal Farm Security Administration. This is the contribution of the practicing physicians of the State of California to the social security of the workers of our State. It is a genuine contribution. No one is getting rich as a result of the operation of this plan. Each doctor and hospital is paid for work actually done and, except for the very small overhead for clerical work, all income is devoted to this purpose. Such fees are small but adequate and secure, and the doctors are thrilled to see that by means of this plan the most complete and modern medical service can be extended to workers everywhere throughout our State.

This is but one of the many efforts being made to protect the American way of life, while we prepare to preserve and defend it in whatever part of the world it may be challenged.

1893 Wilshire Boulevard.

RÔLE OF THE DOCTOR OF MEDICINE IN THE LIFE AND HEALTH OF THE AMERICAN CITIZEN*

By RUTH KLIEWER
Bakersfield

SINCE man's emergence upon the earth, illness has been a major component of his personality. Disease has run the gamut of life with him. Medicine, trailing disease, has metamorphosed from the weird rituals of our early ancestors down the centuries to the present highly scientific application of surgery and chemotherapy in conquering the microorganisms which prey on human life. Consequently, in view of the ages which medicine has spanned, in the light of man's successes and failures in his struggle to survive, the rôle of the doctor of medicine in the life and health of the American citizen has been, is, and will continue to be one of unequalled significance.

Today, as we study the records of progress made in the various industries and professions, note the changes in social structure, and speculate on future achievements, we cannot exclude from our survey the obvious fact that the greater part of America's survival and continued development must be credited to the profession which has kept us, as individuals, alive and able-bodied: the medical doctors. More remarkable even, is the fact that they have made, during the last two and one-half decades, more contributions to the preservation of life than in all the years previous.

Let us picture, for a moment, the health situation in America at the beginning of the twentieth century. The United States was just settling back from three centuries of wars and pioneering. Conquest of unexplored territory occupied the lives of old-timers and immigrants. The great expanses which separated towns, settlements, and homesteads, plus primitive methods of travel, made communication difficult. Due to the high frequency of illness from perils of pioneering and constant exposure to reinfection from Old World immigrants, an ignorance of pestilences, the obscurity of disease, the scarcity of doctors, and the superstitions upon which aid was administered, the system of living was precarious. Sanitation was a term foreign to the populace. Approaching symptoms of disease eluded recognition. Subjecting herself and her child to the hazards of unhygienic surroundings and inadequate accommodations, the prospective mother was confined in her own home and was delivered by a midwife. New-born generations were fed on adult foods from the very start, and a harvest of 1,500,000 American citizens was reaped by Death in 1900, nearly one-third of which died of diseases seldom occurring today, so well are their causes and treatment known.

Thus we, as part of a human race afflicted since its origin by a myriad of diseases, and made stupid and incompetent thereby, and devoid of scientific treatment for our afflictions, presented to the medical doctor less than half a century ago a problem of stupendous propensity.

With the birth of cities, the West conquered, state governments established, the nation unified, the institution of more efficient communication, the successful establishment of public education, the extension of mechanical inventions, and the complex social situations created by the spirit of the new era and the increasing population, came an opportunity for more Americans to devote their energies to physiological, chemical, and bacterial research. Then, from the few general laws of science known and accepted, and a less number of

* Prize essay in contest open to high school and junior college students, sponsored by the Committee on Public Health Education of the California Medical Association, May, 1941.
Essay prize was awarded to Miss Ruth Kliewer, a student in the Bakersfield Junior College, Bakersfield, California.

significant discoveries to draw from, medicine, as we know it today, began to change like a kaleidoscope, and the physician assumed a new rôle in American life: a responsibility for the health of his countrymen as a unit—a duty of finding disease, treating it, and eliminating it from among the perils we combat. The vision and toil of a few exceptionally outstanding medical men, and those who followed them through the pioneering phases of modern medicine, sincerely devoted to the finest that the term "Medical Profession" implies, must be credited for a generous portion of what progress has been made, what increased health fortifications we now have: For the decrease of infant mortality, and a corresponding extension of the average life.

Therefore, the rôle of the doctor of medicine in the life and health of our American citizenry must be presented in two parts: The significance of his services since 1900, and his future contributions to national health.

I

Today the annual number of deaths is approximately what it was forty years ago, but the population is 56,000,000 greater than in 1900. This means that the death rate has dropped 60 per cent in less than half a century; an excellent indication of victory over our microscopic enemies. It also means that today there are 72 more persons in every 1,000 of our population who are escaping death from disease, illness, or accident than there were four decades ago, or that in a city of 100,000 population, you have 715 more chances to live this year than you would have had in 1900. From this it is evident that the illnesses leading to death have been greatly controlled by scientifically applied medicine. Typhoid epidemics which occurred yearly, are today not listed by the census bureau as a major cause of death. In 1900, typhoid caused 36 deaths per 100,000 population; today it is responsible for less than 2. Diphtheria, which then claimed in death 43 of every 100,000 citizens, today claims only 2. Four decades ago pneumonia killed one in every 500 persons. Today it takes one in 1,500. Cholera, typhus, smallpox, yellow fever, and malaria have also fallen before the relentless onslaughts of our nation's medical men. Tuberculosis is now only one-fourth the White Plague that it was forty years ago! In four years, our doctors have so changed our attitude towards social diseases, and have persisted so intensely in the fight for control and potential elimination of syphilis and gonorrhea from our bodies, that together with the recent new, quick, and effective methods of treatment, and with premarital examinations required in at least eighteen states, we stand an encouraging chance of freeing ourselves from a disease which has ravaged man's body and degenerated his brain since before the Christian era. Infant deaths due to congenital malformations and diseases have been reduced by one-half, and the majority of today's prospective mothers are cared for in hospitals or maternity homes. Diets for babies and children are now given special attention, and child supervision by a physician is gaining in popularity among the younger parents who realize that parenthood does not endow them with the training, knowledge, experience, and resources of the doctor. These accomplishments have been due in part to research, of course, but due to the conclusions of such research as have been dispensed to the public by the medical practitioner.

With increased successes and the voluntary incorporation of extended responsibilities, the private practice of medicine has shifted its emphasis from illness to health and correct hygienic supervision of the healthy. Various methods have been employed in this process. Public interest and support of health programs have been acquired by a more appealing dissemination of information, through more, far-reaching channels of propaganda. Doctors of the American Medical Association pioneered this educational aspect through the establishment of a bureau of health and public instruction and publication of the magazine, *Hygeia*. Our physicians have organized and published information in bulletins, books, pamphlets, and speakers' bureaus, and have sponsored radio programs. Realizing that man cannot be forced against his will to accept what is best for him, the medical profession has been so successful in making us desirous of their services that the dangerous situation has now arisen in regard to how their services can be made available to all of our populace who demand them! So now our doctors have the medical-economic responsibility of providing a system whereby every American citizen can receive adequate medical care regardless of his financial status.

Already many experiments are under way, one of the most prominent of which is the California Physicians' Service under the chairmanship of Dr. Ray Lyman Wilbur. Indicative of the attitude of the medical profession toward these changes in methods of practice, is a statement made by Doctor Wilbur, who said, in regard to members of group service: "Our sympathy, our sense of 'fair play,' and our desire for self-protection and self-projection all unite in demanding that we reject emphatically any suggestion that these people should be given an inferior service—a service that we cannot label 'good in quality and reasonably adequate in quantity.'"

The evolution of any system, if inclusive and successful enough to make adequate medical services available to all our people, will perhaps, in itself, be regarded as the greatest contribution that has yet been made to our lives and health, when our civilization is viewed by historians of the future.

Also as a principal step in the maintenance of public health and continued conquest of disease, and essential to early discovery of any disease processes, our doctors instituted a plan of periodic physical examination, and are striving to develop a public view that one person's health or illness is everybody's business. Therefore, in comparing attitudes of today with those of the past few decades, we find a shift from that of extreme indifference, ignorance, and superstition in matters regarding disease, to one of great enlightenment and constantly expanding health consciousness on the part of the American public. This is a remote

indication that the relief dispenser may also play a significant part in helping us as a nation to catch up with the lag we have allowed to occur in self-control, until it equals scientifically the degree of control we have attained over our environment.

The work of our National Health Department, administered by medical doctors and directed by a Surgeon General, cannot be ignored. This particular medical group has perhaps been more responsible for the success of other practitioners than we realize, for to them full credit must be given for guarding us from exposure to diseases carried to our shores by international travelers, and by those immigrants seeking residence here. These public doctors have the task of:

1. Medically inspecting and examining all arriving aliens.
2. Preventing interstate spread of disease.
3. Suppressing epidemics.
4. Investigating causes and methods of preventing disease.
5. Supervising and controlling the manufacture and sale of all biologic products used in prevention and treatment of disease.
6. Maintaining facilities for confinement and care of drug addicts.
7. Collecting, compiling, and publishing information regarding the prevalence of disease in the United States and in foreign countries.

During the past year, by examination of applicants for immigration visas, our medical officers protected us from contact with 13,500 afflicted with a condition or disease likely to affect their ability to earn a living. Another 22,000 alien passengers and 1,000 seamen were found to be afflicted with some mental or physical defects of disease.

And finally, in philanthropic, nonmedical organizations devoted to promoting health, expenditures are seldom made without the advice and recommendations of a general advisory committee consisting of competent, qualified doctors.

Thus our medical doctors have lobbied for public health, and thus have they rapidly renovated our attitudes concerning self-preservation and physical well-being.

II

Vast territory has been covered in the four decades just passed, but so boundless is the frontier that the challenge of the future presents incalculable possibilities.

Illness has been drastically reduced, but there are still 6,000,000 men, women, and children unable to work, attend school, or pursue other ordinary activities on any one average winter day, on account of illness, of a gross physical impairment resulting from disease, or accidents. A score of dreadful diseases are now well conquered, but nearly one-half of the 6,000,000 are suffering from chronic diseases; about 1,500,000 from colds, influenza, and pneumonia; 2,500 from acute infectious diseases, and appendicitis. For every death reported, there occur sixteen cases of illness disabling for a week or longer. On a per capita basis, every man, woman and child in the nation's population suffers at least ten days of incapacity annually from illness.† More than a million of us are made inefficient by hookworm and other parasites, while 10,000,000 are victims of syphilis, and 60,000 of our newly born, future citizens are infected with it. What a laboratory for those whose occupation is to discover disease, treat it, and cure it, if possible!

In addition to this, 1,500,000 persons in the United States are mentally defective. From 1,500,000 to 2,000,000 others are diseased. Six out of ten hospital beds are occupied by mental patients, besides those cared for in outside institutions.‡ With the possible effects of disease upon the nerves and brain cells becoming more and more apparently a contributory factor to many forms of insanity, mental health also is now shifting from the field of pure philosophy and psychology into the realms of medicine and the hands of the medical doctor.

Thus, it is obvious that beyond the realm of superficial progress in American economic and cultural phases, true progress must be credited to the part that the doctor of medicine has played and will continue to play in the life and health of American citizens. The future holds for him adventure, exploration, discovery in increasing magnitude. His rôle is one that will not be finished until the last citizen is free of disease, and the sources of infection are eliminated. His rôle in the future will be greatly influenced by the extent to which we project all that has been accumulated, through medical research and application, into terms of human value and happiness for that part of life that we and coming generations yet shall live. If we accept that responsibility, our doctors' efforts and sacrifices may be turned toward other achievements now not dreamed of.

We are paying a terrible price in terms of life and happiness for those maintained in institutions. Our institutions need a medical aspect. Jails, orphanages, old peoples' homes, soldiers' homes, insane asylums, all afford well-supplied laboratories for research in pathology, bacteriology, therapeutics, and biogenetics. It may even come about that in the future, if the doctor is not hampered, he, instead of emotionally unjust juries, will pass the sentence upon our criminals.

The doctor of medicine assists us into life, protects us from ourselves while we live, extends our span of life, and administers relief at death.

And so, as the evolution of man continues, if the United States survives the conflicts of nations to rise above the petty dabble of narrow minds, and reaches, in the centuries ahead, these social ideals (and even if not), the profession of medicine, those who lead it, and those who follow it, will have made the most constructive and enduring contributions to the lives and health of America's citizens that this era has received.

In conclusion then, as I study our social problems and those things which cause them, I am convinced that this campaign for health in the United

† National Institute of Health and Public Health Service, 1938.

‡ *Science Monthly*, 47:550-551.

States, this effort on the part of doctors to show us a way to a biologic understanding of ourselves, is more important to us now and in the future than any other national or international situation, because physical health and mental well-being are indispensable if our civilization continues to progress. Then, if a certain degree of national mental well-being can be attained in future years, together with a more relaxed pace of living, a more peaceful community life will necessarily evolve. And it is even feasible that only through universal physical and mental health can the prophet's dream of a war-free world materialize.

The American doctor of medicine, then, dedicating his mind and strength to the prevention of premature organic deterioration in his fellow citizens, and to intercepting processes of deterioration in those victimized by disease, with ever increasing emphasis upon both, particularly the first, shall continue to be, but in a greater capacity, the Moses who leads his followers from the wilderness of physical devastation to a land more promising of organic protection, physical health, and mental superiority through knowledge and hygienic living.

315 Holtby Road.

REFERENCES

Statistics: World Almanac, 1940; American Year Book, 1940; Reports of the Committee on the Costs of Medical Care.

Magazines: Hygeia, 1940; American Journal of Public Health; Scientific American, 1940; Science News Letters; Science Monthly.

Books: "The Fight for Life," De Kruif; "20th Century Psychiatry," William White; "Our Children in a Changing World," Erwin Wexberg; "A Short Introduction to the History of Human Stupidity," W. B. Pitkin; "The March of Medicine," Dr. Ray Lyman Wilbur; "Your Diet and Your Health," Fishbein; "The Patient's Dilemma," Cabot.

CLINICAL NOTES AND CASE REPORTS

OAK POISONING: CAUSE-REMOVING TREATMENT

By EDWIN F. PATTON, M. D.
Los Angeles

MOST prevailing treatments of oak and ivy poisoning are directed toward (1) relieving the discomfort till the disease runs its course, and (2) developing neutralizing substances in the blood of the victim.

Another, and preferable approach, (3) removing the cause, is here described because it is so simple and so effectual in cutting short the affliction.

The cause, an oleoresinous plant exudate, acts as an irritant as long as it is in contact with the skin, even in exceedingly minute quantity. This substance is not soluble in water; hardly at all in alcohol; is partially emulsifiable in soapsuds; is freely soluble in certain cleaning agents, notably benzine.

By mopping up small areas in series with individual benzine-soaked pledgets of cotton or small rags, discarding each pledget or rag after use, and continuing until all affected surface has been so treated, a good deal of the offending irritant can be picked up and removed. A little gentle scrubbing makes the removal more complete. Of course, any previously applied coating of calamine, or other medicament, which merely covers the oleoresin and binds it into intimate contact with the skin, must be removed to get at the underlying toxin. On fairly fresh lesions this treatment is not particularly painful. After the skin is broken, the treatment becomes increasingly heroic—yet justifiable because of results.

After a session with benzine the part treated should be left exposed and fanned till the benzine is completely evaporated. Then a thorough lathering and hot showerbath (not *tub* bath) may follow. Then, if itching continues, full strength Dobell's solution may be daubed on *ad libitum* and allowed to dry, or may be used as a wet compress.

The whole process may have to be repeated a second or perhaps a third time, at intervals of a few hours, before enough of the oleoresin has been removed to allow healing; but when this is accomplished, regardless of the previous duration of the disease, twelve to thirty-six hours will see the healing stage well under way.

Sedatives, however, may have to be used during the treatment period.

3875 Wilshire Boulevard.

HIPPOCRATES' APHORISMS*

By MOSES SCHOLTZ, M. D.
Arcadia

SECTION FIVE (Continued)

47. A prolapsed womb
With suppuration,
Leads to sinus
And ulceration.

48. A male fetus is located
Most often to the right,
While the female is found rather
Moored to the left side.

49. A free expulsion of the placenta
Can be produced with greater ease,
If, with the mouth and nostrils shut,
The woman can be caused to sneeze.

50. To stop the menses in a woman
One should apply cups to the breasts.
The largest cups 're the most effective—
So the experience attests.

51. In a state of pregnancy
The mouth of the womb is closed.

52. If in a pregnant woman flabby breasts
With milk secretion overflow,
The fetus's weak, but firm breasts
Suggests a healthy embryo.

* For other aphorisms, see CALIFORNIA AND WESTERN MEDICINE, March 1940, page 125; April 1940, page 179; May 1940, page 231; July 1940, page 35; August 1940, page 85; September 1940, page 130; December 1940, page 272; January 1941, page 27; February 1941, page 82; March 1941, page 124; April 1941, page 229.

53. Shrinking breasts suggests miscarriage,
But, if they do regain their size,
With pain in breasts, hips, eyes or knees
The mishap will not materialize.

54. If the mouth of the womb is hard,
It is also shut and barred.

55. Emaciated women who are pregnant
And seized with fevers with no apparent cause,
Are due for arduous labor, and miscarriage
May bring them dangerous and even fatal woes.

56. If fits and fainting supervene
On excessive menstruation,
It is an evil combination
Which bodes a hard and painful course.

57. Both, when menses are excessive
And when they're scant or fully checked,
Morbid changes in the womb
Female maladies attract.

58. Inflammation of bowel and womb,
Or kidney suppuration,
Cause strangury, and hiccup comes
Following liver inflammation.

59. To test a woman for power to conceive,
Wrap her in blankets and fumigate below;
Should the scent pass through the body to the mouth,
Her womb is good soil for seed to set and grow.

60. If a woman with child
Continues with her menses,
The fetus is bound to show
Injurious consequences.

61. If a woman's menses are suppressed,
And neither chills nor fever do appear,
And, if by nausea she's harassed,
That she's pregnant, becomes clear.

62. Females whose wombs are cold and dense
Or humid do not well beget;
For semen can't survive in there,
By an adverse medium beset.
And, if the womb is hot or dry,
The semen dies for wont of food;
The state of womb between these two
Would seem for seed the best to do.

63. Likewise in males, because of weakness,
Semen is not propelled within;
If it's too dense or hot or cold,
It does not reach the proper channels
And, unproductive, stays between.

64. Milk is bad for headaches, colics,
Thirst, bilious fevers and those who've bled;
But milk is good in chronic fevers,
For chronic phthisics and the underfed.

65. Swelling on wounds prevents fits and delirium,
Convulsions and tetanus come when it wanes
From wounds in the rear, while front wounds more often
Cause madness, dysentery, pus and chest pains.

66. If severe and evil wounds
Do not bulge and do not swell,
It can have but a single meaning:
They are dangerous and fell.

67. Soft tumors
Are benign;
Hard ones
Are malign.

68. When one has pains
In the back of his head,
He can be relieved,
If his forehead is bled.

69. In women chills start from the loins
And move up to the back of the head;
In men—from the dorsum of arms and thighs,
Where the skin's cold and bare, they spread.

70. In those who suffer with quartan fevers,
Convulsions are not often seen,
And those, attacked with such convulsions,
Get well, if quartans supervene.

71. Those whose skin is hard and parched
End an illness without sweat;
But, when the skin is loose and thin,
The end of illness leaves the skin wet.

72. The sick with a jaundice incidence
Are not inclined to flatulence.

Section Six

1. If in chronic lientery
Acid belching does occur,
It can be properly regarded
An auspicious harbinger.

2. The persons who have humid noses,
And those whose seed is thin as dew,
Oft have impairments of the body;
The contrary is also true.

3. In chronic cases of dysentery
Distaste for food is a sign adverse
And, when accompanied by fever,
It makes prognosis that much worse.

4. Ulcers combined
With a loss of hair
Denote noxious
Disrepair.

5. It is of serious import
To know the nature of various pains
In the breasts, the sides and other parts,
And to what their difference pertains.

6. Old men's kidneys and the bladder,
When stricken by disease,
Are refractory to cures
And to remedies.

7. The nearer to the surface
Stomach-pains are set,
The milder is their nature;
The deeper, the more severe they get.

413 Longden Avenue.

(To be continued)

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION†

HENRY S. ROGERS, M. D.....President
WILLIAM R. MOLONY, SR., M. D.....President-Elect
LOWELL S. GOIN, M. D.....Speaker
PHILIP K. GILMAN, M. D.....Council Chairman
GEORGE H. KRESS, M. D.....Sec'y-Treas. and Editor
JOHN HUNTON.....Executive Secretary

INDEX

COUNCIL OF THE CALIFORNIA MEDICAL ASSOCIATION

I.—First Meeting at Del Monte

Minutes of the Two Hundredth and Ninety-First (291st) Meeting of the Council of the California Medical Association

Meeting was held in the Hotel Del Monte at Del Monte, Sunday, May 4, 1941, at 8 p. m.

1. Roll Call.

Present: Councilors Philip K. Gilman (Chairman), Harry H. Wilson, Henry S. Rogers, Charles A. Dukes, Lowell S. Goin, E. Earl Moody, Elbridge J. Best, Sam J. McClendon, Edward B. Dewey, Dewey R. Powell, Calvert L. Emmons, Louis A. Packard, Axcel E. Anderson, R. Stanley Kneeshaw, Oliver D. Hamlin, Frank A. MacDonald, John W. Green; Donald Cass, Public Relations Chairman; George H. Kress, Secretary-Editor.

Absent: Councilors John W. Cline (out of state) and George D. Maner.

Present by invitation: E. Vincent Askey, Vice Speaker; Frank R. Makinson, Chairman of Committee on Public Health and Education; Dwight H. Murray, Chairman of Committee on Public Policy and Legislation; Dr. Ray Lyman Wilbur, Chairman of Board of Trustees, California Physicians' Service.

Present by request: John Hunton, Executive Secretary; Hartley F. Peart, Legal Counsel; and Howard Hassard, Associate.

2. Minutes.

Minutes of the 290th meeting of the Council held on February 23, 1941, were approved. (Abstract was printed in California and Western Medicine, April, 1941, on page 230.)

3. Membership.

(a) *Report on Current Membership.*—Report as of April 30 showed that 6,246 members have paid the 1941 dues (inclusive of 238 new members). A total of 619 members, who paid their dues in 1940, had not yet remitted for the year 1941.

(b) *Retired Memberships.*—The respective component county societies, having presented applications in regular form, it was voted that retired membership in the California Medical Association be granted to the following members:

Richard W. Baker, Los Angeles County.
Willoughby G. Dye, Los Angeles County.
William C. Finch, Los Angeles County
Peter M. Suski, Los Angeles County.
Minnie A. Seavey, Sacramento County.
William A. George, San Bernardino County.
Ross C. Martin, San Bernardino County.
Edgar James Farrow, San Diego County
Trueman A. Parker, San Diego County.
Emma K. Willits, San Francisco County.
Michael W. Kapp, Santa Clara County.
Frank A. Yoakman, Ventura County.

4. California Physicians' Service.

Dr. Ray Lyman Wilbur, Chairman of the Board of Trustees of California Physicians' Service, was present by invitation and outlined briefly the objectives of California Physicians' Service, and the procedure that had been inaugurated to develop it into a medical service organization that would be sound financially, and at the same time be able to make available to beneficiary members the best quality of medical service. Because of conditions existing at the time California Physicians' Service was instituted, it was deemed advisable to place a ceiling of $3,000 as the net income of workers who would be eligible to beneficiary membership. The number of members having ceiling incomes was small, and consisted mostly of foremen or executives whose good will and prestige made possible the securing of groups of other workers in some of the industrial plants. Attention was also called to the fact that, under present emergency conditions, it appeared that a considerable number of workers who previously had received net incomes of less than $3,000 would be placed in the ceiling class; and that to take action depriving them automatically of beneficiary membership might create unrest and result in loss of groups having considerable membership. Doctor Wilbur stated it seemed advisable, therefore, to take no drastic action at the present time.

A general discussion followed, with reference to presentation of a resolution on behalf of the Council, in which the reasons for maintaining the existing set-up would be given. It was felt that when members of the California Medical Association who were professional members of California Physicians' Service appreciated the past, existing, and future problems of the organization, there would be comparatively little opposition to maintaining the present status of eligibility requirements for beneficiary member-

† For complete roster of officers, see advertising pages 2, 4, and 6.

ship. Discussion was participated in by Doctors Powell, Dewey, Packard, Wilson, Kneeshaw, Goin, and Best.

Upon motion duly made and seconded, the Chairman of the Council was instructed to appoint a committee to draft a resolution that would be in line with the discussion. Committee appointed consisted of Councilors Powell, Emmons, and Kneeshaw.

5. Committee on Public Health Education.

(*a*) Dr. Frank R. Makinson, Chairman of Committee on Public Health Education, presented a report concerning the work of that committee and stated that Miss Ruth Kliewer, a student in the Bakersfield Junior College, had been awarded first place in the high school- junior college essay contest for her paper on "Rôle of the Doctor of Medicine in the Life and Health of the American People." Doctor Makinson added that it was the intention to print the essay and give it wide distribution.

(*b*) Balance to the credit of the Committee on Public Health Education was stated to be $14,390.38.

(*c*) Chairman Makinson also reported concerning the matter of engaging the services of a publicist at possible expense of $4,000 to $5,000 a year. The Los Angeles man who had been contacted had agreed to furnish an essay once a week, for which the sum of $50 would be paid. The California Medical Association headquarters would bear the expense of distribution to newspapers. Statement was made that the Committee on Public Health Education was not unanimous in recommending the plan, and that it was desirable that the Council should decide the matter.

After discussion, participated in by Doctors Wilson, Rogers, Packard, Askey, and Powell, upon motion duly made and seconded, it was voted that the Council go on record as not being in favor of the plan, in the belief that the funds could be expended to better advantage along other lines of public health education.

(*d*) Basic Science Initiative. Legal Counsel Hartley F. Peart reported that the Basic Science Act had been presented to the Attorney-General of the State of California, who has prepared a title and summary of the chief purposes and points of the proposed measure as follows:

Basic Science Act.—Initiative. Creates Board of Examiners in basic sciences (naming five sciences) comprising five members with prescribed qualifications appointed by Governor. Requires persons obtain basic science certificate from said Board after written examination before applying to Medical, Dental, Osteopathic or Chiropractic Boards, or other governmental authority, for license to practice healing art (defining same) or any phase thereof. Exempts various professions, present licensees and persons treating sick by prayer in practice of any well-recognized religion. Prescribes examination fees, penalties for violations and disposition of fines, requiring proceeds therefrom used for administering Act. Declares existing statutes not repealed.

As proponents of the Act were the following:

Representing the California Medical Association: Harry H. Wilson, M. D., 1919 Wilshire Boulevard, Los Angeles; Henry S. Rogers, M. D., Petaluma; Phillip K. Gilman, M. D., 2000 Van Ness Avenue, San Francisco; Donald Cass, M. D., 5300 Hollywood Boulevard, Los Angeles; and representing the California State Dental Association and the Southern California State Dental Association, Ernest Sloman, D. D. S., 344 Fourteenth Street, San Francisco.

The suggestion was made that the Committee on Public Health Education and the Committee on Public Relations coöperate in the work of securing signatures and carrying the campaign of education concerning the Basic Science law.

6. Kern County Hospital Publicity.

Doctor Packard spoke of an article that was under consideration by the *Reader's Digest,* that periodical having sent its representative to interview the Kern County Hospital authorities and the Kern County Medical Society relative to the backgrounds involved in Kern County Hospital activities. Doctor Packard stated that subsequently he had received word from the publication's New York office that they had changed their plans.

7. Medical Services by Hospitalization Groups.

Doctor Wilson outlined the history of the three hospital and indemnity service groups now operating in California, and spoke of their relation to California Physicians' Service. He referred also to the action taken by the Council at its meeting in Los Angeles on October 6, 1940, at which time it was proposed that approval would be withdrawn if certain conditions were not rectified. Discussion was participated in by Doctors Goin, Garland, and Moody. Motion was made that the matter be laid on the table for further discussion at the Council's meeting to be held on Tuesday.

8. California and Western Medicine.

(a) *Editorial Board.*—Chairman Gilman referred to the action taken by the Council in its meeting on February 23, 1941, at which time he was instructed to prepare a list of nominations that would be in accordance with the resolution for the creation of an editorial board that had been adopted by the Council. After informal discussion, a special committee, consisting of Doctors Moody, Best, and Packard, was instructed to study the list of nominations and to submit the same at the next meeting of the Council, with such changes as might be deemed desirable.

(b) *Proposal to Have a Contractor Print the Official Journal.*—Discussion was had concerning the relative costs involved in printing the OFFICIAL JOURNAL. Executive Secretary Hunton presented a breakdown of the actual cost of CALIFORNIA AND WESTERN MEDICINE in 1940, and in parallel columns indicated what would be the costs under the contract proposed by Mr. Gardiner. Also, what would be the expense under the revised set-up of CALIFORNIA AND WESTERN MEDICINE if handled through the California Medical Association office, directly under the supervision of the Business Manager. It was shown that the net loss of CALIFORNIA AND WESTERN MEDICINE in 1940 (that is, when based upon advertising income alone without reference to a subscription allocation of members as demanded by the United States Postal Department) was $8,142, and that under the Gardiner proposal the loss would be $7,148, whereas under the California Medical Association Business Manager plan the loss would be only $4,561. Per member, the loss under the three plans was estimated at $1.19 (larger issues of 1940), $1.05 (Mr. Gardiner's proposal), and $0.686 (California Medical Association, with proposed changes). A general discussion followed, in which emphasis was placed upon the desirability of having the constituted officers of the California Medical Association remain in control of advertising, etc. Upon motion by Doctor Best, seconded by Doctor Powell, it was voted to continue to carry on the OFFICIAL JOURNAL under the system that had obtained from the time it was established in 1901.

It was agreed that the Business Manager should obtain additional bids, not only in San Francisco, but in Los Angeles, and that proposed printing economies should be instituted.

9. Medical Preparedness.

Doctor Gilman, Chairman of the California Committee on Medical Preparedness, gave a progress report. Doctor Green presented a possible resolution dealing with men called into service, but it was agreed it would not be wise to introduce it as part of the Council report.

10. **Legislation.**

Dr. Dwight H. Murray, Chairman of Committee on Public Policy and Legislation, gave a report on the work that had been done by that committee during the present session of the Legislature, and outlined the status of measures having relation to medical practice and public health.

It was emphasized that members and component county societies should not give independent approval to proposed legislation. It was felt that all endorsements should go through the headquarters office or through the Committee on Public Policy and Legislation.

11. **Sectarian Medicine Proposal.**

Chairman Gilman stated that there had been no new developments subsequent to the letters that were forwarded to the Council on Medical Education of the American Medical Association, the Association of American Medical Colleges, and the National Specialty Board.

12. **Legal Department.**

Legal Counsel Peart reported on the reversal opinion that had been handed down by the Fourth District Court of Appeal, which would grant a new trial to a former member, who had been deprived of membership by the Kern County Medical Society.

Mr. Peart stated that a petition for a rehearing would be filed and that, if this was denied, appeal would then be taken to the Supreme Court.

13. **California Industrial Welfare Commission.**

Executive Secretary Hunton reported upon a plan proposed by the California Industrial Welfare Commission, that a wage board be appointed having representatives of employers, employees, and the Commission. The State Commission desired to make a survey of wages received by minors and females, with particular reference to employees who are engaged in professional and other groups.

Upon motion duly made and seconded, it was voted to authorize the Council Chairman to appoint a representative for the California Medical Association.

PHILIP K. GILMAN, *Chairman.*
GEORGE H. KRESS, *Secretary.*

* * *

II.—Second Meeting at Del Monte

Minutes of the Two Hundred and Ninety-Second (292nd) Meeting of the Council of the California Medical Association

The meeting was held in the Hotel Del Monte at Del Monte, Monday, May 5, 1941, at 4 p. m.

1. **Roll Call.**

Present: Councilors Philip K. Gilman (Chairman), Harry H. Wilson, Henry S. Rogers, Charles A. Dukes, Lowell S. Goin, E. Earl Moody, Elbridge J. Best, Sam J. McClendon, Edward B. Dewey, Dewey R. Powell, Calvert L. Emmons, Louis A. Packard, Axcel E. Anderson, R. Stanley Kneeshaw, Oliver D. Hamlin, Frank A. MacDonald, John W. Green, George D. Maner; Donald Cass and George H. Kress.

Absent: Councilor John W. Cline (out of state).

Present by invitation: L. Henry Garland, Secretary of the San Francisco County Society.

Present by request: Messrs. John Hunton, Hartley F. Peart, and Howard Hassard.

2. **California Medical Association Special Assessments of June, 1939.**

The report of the Special Committee, consisting of Councilor Maner and Legal Counsel Peart, concerning recommendations on proposed procedures in relation to physicians who were members of the California Medical Association in 1939, and who did not pay the special assessment of June 1, 1939, was submitted to the Council. After discussion, it was voted that the report, as modified, should be attached to the Council's report as an addendum, to be submitted with other addenda at the meeting of the House of Delegates on Monday, May 5.*

3. **Report of Special Committee to Submit Nominations for the Standing Committees.**

A special committee, consisting of Councilors Green, Dewey, and Best, was appointed to bring in suggestions to the Council on how vacancies on the standing and special committees should be filled, this committee to make report at the Council meeting to be held on Wednesday, May 7.

4. **Report Concerning California Physicians' Service.**

A special committee, consisting of Councilors Powell, Emmons, and Kneeshaw, submitted a report concerning problems having to do with administration of California Physicians' Service. After discussion and modification, it was voted that the report, as amended, should be attached to the Council's report as one of the addenda, to be presented on May 5 to the House of Delegates by Council chairman.

5. **Medical Services by Hospitalization Organizations in California.**

Dr. L. Henry Garland, a member of the Pacific Roentgen Club, outlined to the Council the actions taken by the House of Delegates of the American Medical Association, the California Medical Association, and the California Medical Association Council in relation to medical services such as clinical laboratory, x-ray and anesthesia work, when such medical services were a part of the benefits provided through nonprofit or other hospitalization groups.

Mention was made of recent conferences with the representatives of the Associated Hospital Service of Southern California.

General discussion followed, participated in by Councilors Goin, Rogers, Cass, McDonald, Moody, Packard, Wilson, Dewey, and Emmons.

The delicacies of certain legislative and other existing conditions and the desirability of having a unified and harmonious plan in operation by the three hospital associations of California (Hospital Service of California, Oakland; Associated Hospital Service of Southern California, Los Angeles; and Intercoast Hospitalization Insurance Association, Sacramento) were pointed out.

President Wilson felt that the work that would be involved in solving some of the problems would take much time and that it was desirable that the responsibility should not be shuttled to the shoulders of individual councilors, but rather to the headquarters office personnel, acting with and under the direction of the Council chairman.

Upon motion by Doctor Wilson, seconded by Doctor Dukes, the following resolution was presented:

Resolved, **By the Council of the California Medical Association, that the indemnification and/or agreement to make available the professional services of any kind or character by hospital associations is inimical to public welfare and is contrary to professional ethics; and be it further**

Resolved, **That approval by the California Medical Association and professional support is conditioned upon strict compliance and adherence to this principle.**

Discussion then followed concerning the resolution. On motion by Councilor Goin, seconded by Councilor Dewey, it was voted to postpone action on the resolution until the next meeting of the Council.

---

* Addenda to Council Report appear in the minutes of the meeting of the House of Delegates, of May 5, 1941.

6. Nominations for the Editorial Board.

The special subcommittee, consisting of Councilors Moody, Best, and Packard, and which had been appointed to consider the names submitted by Council Chairman Gilman for placement upon the Editorial Board, through Councilor Moody, Chairman, brought in a progress report, recommending that Dr. George Barnett of San Francisco act as chairman of the entire group. Upon motion by Rogers, seconded by McClendon, the revised list was tentatively approved as read. The initiation of the work of the Editorial Board would be left to Council Chairman Gilman, who, by the terms of the Council resolution would also appoint the Executive Committee of the Editorial Board.

7. Resolution No. 2 of the Coronado Annual Session.

Councilor MacDonald, chairman of a special subcommittee, presented the report concerning Resolution No. 2, which was printed on pages 265 and 283 in the June, 1940, issue of CALIFORNIA AND WESTERN MEDICINE.

It was voted that the subcommittee's report be attached to the Council's report as an addendum, and that Council Chairman Gilman present the same to the House of Delegates.

8. Amendment Regarding Dues of New Members Admitted During the Last Six Months of a Calendar Year.

A proposed amendment relating to dues of new members admitted during the last six months of a calendar year, as drafted by the legal counsel, under instructions from the Council, was read, and on motion duly made and seconded, it was voted that the same be presented to the House of Delegates on behalf of the Council.

9. Proposed Amendment Concerning Exemption of Dues of Members Who Are Inducted Into the Military Service.

A proposed constitutional amendment that would provide ways and means whereby State Association dues of members who have been or may be inducted into the military services could be waived was read and, on motion duly made and seconded, it was voted that Council Chairman Gilman present the same to the House of Delegates on behalf of the Council.

10. National Physicians' Committee for the Extension of Medical Services.

President Wilson spoke concerning the presentation by Mr. John M. Pratt at the general meeting on Monday, May 5, in which some of the work of the National Physicians' Committee had been briefly indicated. Doctor Wilson stated that he felt the activities of the National Physicians' Committee were worthy of wide support and that component county societies should be urged to coöperate with the organization.

11. Adjournment.

On motion duly made and seconded, adjournment was taken, to meet again on Wednesday, May 7, at 4 p. m.

PHILIP K. GILMAN, *Chairman.*
GEORGE H. KRESS, *Secretary.*

* * *

A meeting was called, to be held in the Hotel Del Monte, Del Monte, on Tuesday, May 6, at 4 p. m.

A quorum not being present, no formal meeting was held. The members present informally received invitations for the 1942 annual session from the Hotel Coronado of San Diego County, Hotel Huntington of Pasadena, and Hotel Del Monte of Del Monte.

PHILIP K. GILMAN, *Chairman.*
GEORGE H. KRESS, *Secretary.*

III.—Third Meeting at Del Monte

Minutes of the Two Hundred and Ninety-Third (293rd) Meeting of the Council of the California Medical Association

Meeting was held in the Hotel Del Monte, Del Monte, on Wednesday, May 7, 1941, at 4 p. m.

1. Roll Call.

Present: Councilors Philip K. Gilman (Chairman), Harry H. Wilson, Henry S. Rogers, Charles A. Dukes, Lowell S. Goin, E. Earl Moody, Elbridge J. Best, Sam J. McClendon, Edward B. Dewey, Dewey R. Powell, Calvert L. Emmons, Louis A. Packard, Axcel E. Anderson, R. Stanley Kneeshaw, Oliver D. Hamlin, Frank A. MacDonald, John W. Green, George D. Maner; Donald Cass and George H. Kress.

Absent: Councilor John W. Cline (out of state).

Present by request: Messrs. John Hunton, Hartley F. Peart, and Howard Hassard.

2. Place of Meeting for the 1942 Annual Session.

(*a*) Consideration was given to the invitations received from Hotel Coronado of Coronado, in San Diego County, Hotel Huntington of Pasadena, and Hotel Del Monte of Del Monte. After discussion of the relative merits and advantages of the three places, upon motion by Councilor Maner, seconded by Councilor MacDonald, it was voted that Hotel Del Monte was the Council's choice for the place of meeting for the 1942 annual session, and that the House of Delegates be so informed.

(*b*) Upon motion by Councilor Packard, duly seconded, it was voted that a special committee, consisting of the Council Chairman, the Association Secretary, and Executive Secretary, be appointed to confer with officials of the Del Monte Properties Company relative to possible improvements that would make for additional conveniences, making it possible for the California Medical meeting to meet at Del Monte from year to year. It was felt that with better facilities, such a plan might be possible.

3. Nominations for Editorial Board.

The special subcommittee, consisting of Councilors Moody, Packard, and Best, submitted their nominations for the Editorial Board. Several changes were suggested, after which, upon motion duly made and seconded, the revised list was adopted and the Chairman of the Council was authorized to proceed in accordance with the original resolution providing for the institution of an editorial board. The personnel and officers of the Editorial Board follow:

Chairman of the Board:
George D. Barnett

Executive Committee:
Sumner Everingham, Oakland, Chairman.
Mast Wolfson, Monterey.
Albert J. Scholl, Los Angeles.
George W. Walker, Fresno.
Chauncey D. Leake, San Francisco.

Anesthesiology:
Charles F. McCuskey, Glendale.
H. R. Hathaway, San Francisco.

Dermatology and Syphilology:
H. J. Templeton, Oakland.
William H. Goeckerman, Los Angeles.

Eye, Ear, Nose and Throat:
Frederick C. Cordes, San Francisco.
L. G. Hunnicutt, Pasadena.
George W. Walker, Fresno.

General Medicine:
George D. Barnett, San Francisco.
George H. Houck, Los Angeles.
Mast Wolfson, Monterey.

General Surgery (including Orthopedics):
Frederick C. Bost, San Francisco.
Clarence J. Berne, Los Angeles.
Sumner Everingham, Oakland.

Industrial Medicine and Surgery:
Richard O. Schofield, Sacramento.
Delos Packard Thurber, Los Angeles.

Plastic Surgery:
George W. Pierce, San Francisco.
William S. Kiskadden, Los Angeles.

Neuropsychiatry:
John B. Doyle, Los Angeles.
Olga Bridgman, San Francisco.

Obstetrics and Gynecology:
Erle Henriksen, Los Angeles.
Daniel G. Morton, San Francisco.

Pediatrics:
William A. Reilly, San Francisco.
William W. Belford, San Diego.

Pathology and Bacteriology:
David A. Wood, San Francisco.
R. J. Pickard, San Diego.

Radiology:
R. R. Newell, San Francisco.
Henry J. Ullmann, Santa Barbara.

Urology:
Lewis Michelson, San Francisco.
Albert J. Scholl, Los Angeles.

Pharmacology:
Chauncey D. Leake, San Francisco.
Clinton H. Thienes, Los Angeles.

4. Medical Service by Hospitalization Organizations.

President Wilson suggested that the Chairman of the Council, the Association Secretary, and the Executive Secretary be constituted a committee to meet with the hospitalization groups in California and, through conference, try to bring about a unification of procedures in the matter of medical services, as indicated in the resolution introduced at the 292nd Council meeting; with instructions that in case an understanding was not reached with the hospitalization groups within a period of ninety days, withdrawal of California Medical Association approval would take place, and that members of the Association would be so notified through the OFFICIAL JOURNAL. General discussion followed concerning phases of medical service in hospitals. Further, it was agreed that the committee to be appointed should have power to call in for active aid, California or other experts whom they deemed might be in position to aid in proper settlement of the matters at issue. On motion duly made and seconded, it was voted that the special committee proceed along the lines agreed upon.

5. Indemnification Procedure.

Councilor Packard referred to booklets concerning surgical fee schedules, and it was noted that where indemnification arrangements existed, phraseology such as "the following sums will be applied to the surgical fees to cover surgical services, etc.," be used. On motion by Councilor Packard, seconded by Councilor MacDonald, it was voted that efforts should be made to have indemnification organizations make changes in the wording, to prevent misunderstandings between physicians and patients.

6. Committee Nominations to the House of Delegates.

The special committee, consisting of Councilors Green, Dewey, and Best, submitted the nominations for the standing and special committees. On motion duly made and seconded, the revised list (with Doctor Clough to take charge of Southern California postgraduate work, Dr. Howard R. Madeley of Vallejo to act as vice-chairman of the Advisory Committee on Public Policy and Legislation, and Dr. Norman O'Neil to be chairman on the Committee on Hospitals) was adopted, the list to be submitted for approval to the House of Delegates.

Suggestion was also made that the Council Chairman notify the respective committees and impress upon the members of each committee that they were to feel free to independently inaugurate studies pertaining to their duties, as outlined in the by-laws, and to make reports and recommendations to the Council. It was also agreed that the Sacramento district should have additional representation on the Committee of Public Policy and Legislation.

Revised list of standing committees follows:

STANDING AND SPECIAL COMMITTEES*

COMMITTEE ON ASSOCIATED SOCIETIES

Willard H. Newman, *San Diego*.....1942
John V. Barrow, Chairman, *Los Angeles*.....1943
Edwin L. Bruck, *San Francisco*.....1944

COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

Wilton L. Halverson, *Pasadena*.....1942
J. C. Geiger, *San Francisco*.....1943
John C. Ruddock, Chairman, *Los Angeles*.....1944

COMMITTEE ON HISTORY AND OBITUARIES

Jay M. Read, *San Francisco*.....1942
Hyman Miller, *Los Angeles*.....1943
Morton R. Gibbons, Chairman, *San Francisco*.....1944

COMMITTEE ON HOSPITALS, DISPENSARIES AND CLINICS

J. Norman O'Neill, Chairman, *Los Angeles*.....1942
Benjamin W. Black, *Oakland*.....1943
Walter Rapaport, *Ukiah*.....1944

COMMITTEE ON INDUSTRIAL PRACTICE

Donald Cass, Chairman, *Los Angeles*.....1942
George H. Sanderson, *Stockton*.....1943
Wilbur J. Cox, *San Francisco*.....1944

COMMITTEE ON MEDICAL DEFENSE

William J. Van Den Berg, *Sacramento*.....1942
Lewis T. Bullock, *Los Angeles*.....1943
Nelson J. Howard, Chairman, *San Francisco*.....1944

COMMITTEE ON MEDICAL ECONOMICS

J. Roy Jones, *Sacramento*.....1942
Edward C. Pallette, *Los Angeles*.....1943
Glenn F. Cushman, Chairman, *San Francisco*.....1944

COMMITTEE ON MEDICAL EDUCATION AND MEDICAL INSTITUTIONS

L. R. Chandler, Chairman, *San Francisco*.....1942
Fred H. Kruse, *San Francisco*.....1943
B. O. Raulston, *Los Angeles*.....1944

COMMITTEE ON MEMBERSHIP AND ORGANIZATION

Dewey R. Powell, *Stockton*.....1942
L. H. Redelings, *San Diego*.....1943
Lewis A. Alesen, Chairman, *Los Angeles*.....1944

COMMITTEE ON POSTGRADUATE ACTIVITIES

H. E. Henderson, *Santa Barbara*.....1942
Dwight L. Wilbur, Chairman, *San Francisco*.....1943
F. E. Clough, Vice-Chairman, *San Bernardino*.....1944

COMMITTEE ON PUBLICATIONS

Francis E. Toomey, *San Diego*.....1942
George W. Walker, *Fresno*.....1943
A. A. Alexander, Chairman, *Oakland*.....1944

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Anthony B. Diepenbrock, *San Francisco*.....1942
E. T. Remmen, *Los Angeles*.....1943
Dwight H. Murray, Chairman, *Napa*.....1944

ADVISORY COMMITTEE

Junius B. Harris, Chairman, *Sacramento*
H. R. Madeley, Vice-Chairman, *Vallejo*.

COMMITTEE ON SCIENTIFIC WORK

Howard F. West, *Los Angeles*.....1942
Fletcher B. Taylor, *Oakland*.....1943
J. Homer Woolsey, *Woodland*.....1944
Secretary, Section on Medicine, ex officio.
Secretary, Section on Surgery, ex officio.
Association Secretary, ex officio, chairman.

COMMITTEE ON PUBLIC RELATIONS

By-laws provide that the chairmen of the following standing committees shall constitute the Committee on Public Relations, the committee electing its chairman:

Roy E. Thomas, Chairman, Committee on Health and Public Instruction.

J. Norman O'Neill, Chairman, Committee on Hospitals, Dispensaries, Clinics.

* On the standing committees one member is elected each year. Term of service is for three years. Council makes appointments of members and chairmanships, subject to approval by the House of Delegates. At Del Monte on Wednesday, May 7, 1941, committee appointments as listed were approved. Each Standing Committee is authorized to appoint advisory members.

Donald Cass, Chairman, Committee on Industrial Practice.

George G. Reinle, Chairman, Committee on Medical Defense.

George D. Maner, Chairman, Committee on Membership and Organization.

John H. Graves, Chairman, Committee on Medical Economics.

Dwight H. Murray, Chairman, Committee on Public Policy and Legislation.

Dwight L. Wilbur, Chairman, Committee on Postgraduate Activities.

Charles A. Dukes, Chairman, Cancer Commission.

Henry S. Rogers, President of California Medical Association.

William R. Molony, Sr., President-Elect.

George H. Kress, Secretary-Treasurer.

CANCER COMMISSION

Alson R. Kilgore, *San Francisco*.....1942
Henry J. Ullmann, *Santa Barbara*.....1942
Clarence J. Berne, *Los Angeles*.....1942
Charles A. Dukes, *Oakland*.....1943
Lyell C. Kinney, *San Diego*.....1943
Otto H. Pflueger, *San Francisco*.....1943
Orville N. Meland, *Los Angeles*.....1944
A. Herman Zeiler, *Los Angeles*.....1944
Gertrude Moore, *Oakland*.....1944

Cancer Commission elects its chairman and secretary.

7. Retirement of Past President Dukes.

Past President Dukes requested the privilege of the floor to express to the members of the Council his deep appreciation of the coöperation that had been given to him in his work as a councilor and general officer.

8. Vacancies in the Standing Committee.

Councilor Best called attention to the possibility of members who had been appointed to places on the standing and special committees being called into military service.

It was agreed that the Chairman of the Council, in conference with the Association Secretary, should have power to fill any vacancies that might arise, subject to later approval by the Council.

9. Vacations for the Association Secretary and Executive Secretary.

President-Elect Rogers called attention to the fact that, while clerical members of the headquarters office had been given vacations, the present Association Secretary-Treasurer had never been given a vacation since he took up the work in 1938. Councilor Rogers felt that vacation periods should be granted to the Association Secretary and the Executive Secretary on the same basis as other employees, and it was so voted.

PHILIP K. GILMAN, *Chairman.*
GEORGE H. KRESS, *Secretary.*

* * *

IV.—Fourth Meeting at Del Monte

Minutes of the Two Hundred and Ninety-Fourth (294th) Meeting of the Council of the California Medical Association

Meeting was held in the private dining room of Hotel Del Monte, Del Monte, Thursday, May 8, 1941, at 7:30 a. m.

1. Roll Call.

Present: Councilors Philip K. Gilman (chairman), Henry S. Rogers, William R. Molony, Sr., Harry H. Wilson, Lowell S. Goin, E. Earl Moody, Elbridge J. Best, Sam J. McClendon, Edward B. Dewey, Dewey R. Powell, Calvert L. Emmons, Louis A. Packard, Axcel E. Anderson, R. Stanley Kneeshaw, Frank Makinson, Frank A. MacDonald, John W. Green, George D. Maner, George H. Kress.

Absent: Councilor John W. Cline (out of state).

Present by request: Messrs. John Hunton, Hartley F. Peart, and Howard Hassard.

2. Election of Council Officers.

The meeting was called to order by Chairman Philip K. Gilman, who stated that the first order of business would be the election of a council chairman. Dr. Philip K. Gilman was nominated, and on motion duly made and seconded, put by President Harry Wilson, the Secretary was instructed to cast the ballot for Philip K. Gilman as chairman.

Elbridge J. Best was elected vice-chairman.

3. Resolution No. 8.

(This item is referred to in minutes of House of Delegates. Electrically recorded. For minutes of California Medical Association House of Delegates, see June issue, on page 310.)

4. Resolution No. 9.

(This item is referred to in minutes of the House of Delegates.)

5. Resolution No. 10.

(This item is referred to in minutes of the House of Delegates.)

6. Committee to Meet with the Industrial Accident Commission.

(This item is referred to in minutes of the House of Delegates.)

7. Resolution Nos. 7 and 11.

(This item is referred to in minutes of the House of Delegates.)

8. Clerical Aid to Woman's Auxiliary.

The attention of the Council was called to the request from the Woman's Auxiliary to the California Medical Association in which the need of occasional clerical aid was brought out. It was voted that the facilities of the headquarters office of the California Medical Association should be made available for mimeograph and similar work, insofar as possible; and, in addition, that for such period immediately preceding the annual session a clerical assistant, or special clerical aid, would be made available in the headquarters office to better carry out the work of the Woman's Auxiliary, such arrangement being subject to approval of a special subcommittee, consisting of the Council Chairman and the Association Secretary.

9. Executive Session.

The Council then went into executive session, Doctor Kress and Messrs. Hunton and Peart withdrawing from the room.

Councilor Moody was requested to act as secretary of the executive session. Minutes of the executive session as presented by Secretary Moody are as follows:

(*a*) On motion by Doctor Rogers, seconded by Doctor McClendon, Dr. George H. Kress was elected editor for one year, at salary of $4,000 per year.

(*b*) On motion by Doctor Packard, seconded by Doctor Emmons, Dr. George H. Kress was elected Association secretary and treasurer for the coming year, at his present salary.

(*c*) On motion by Doctor Packard, seconded by Doctor Anderson, Mr. John Hunton was elected executive secretary for the coming year, at his present salary.

(*d*) On motion by Doctor Rogers, seconded by Doctor Emmons, Hartley F. Peart, Esq., was employed as legal counsel, on his present retainer fee ($4,000).

(*e*) On motion by Doctor MacDonald, seconded by Doctor Kneeshaw, the special committee on reorganization of the headquarters offices and work, consisting of Council Chairman Gilman, President Rogers and Past President Wilson, was instructed to make a survey of the work and expenses of the Legal Department of the Association, and to make report thereon to the Council.

(*f*) Upon motion by Doctor Best, seconded by Doctor Anderson, it was voted that the Council arise from executive session.

PHILIP K. GILMAN, *Chairman.*
E. EARL MOODY, *Secretary.*

10. **Election of Alternate Delegate to American Medical Association House of Delegates.**

Dr. Lowell Goin, who has been elected a delegate to the American Medical Association for 1940-1941, stated that neither he nor his alternate, Dr. Roy E. Thomas, would be able to attend the American Medical Association session to be held at Cleveland, Ohio, June 2-6.

On motion duly made and seconded it was voted that Past President Harry H. Wilson should be the alternate at this year's annual session of the American Medical Association House of Delegates, in lieu of Doctors Goin and Thomas.

11. **Per Diems of Councilors.**

Dr. Dewey R. Powell asked for information concerning the by-law adopted at Del Monte, May 4, 1939 (per insert on page 35, by-laws), relating to expenses of councilors and officers. General discussion followed, it being agreed that any action previously taken by the Council (per item 9074 in Council minutes of June 3, 1939), subsequent to the action of the House of Delegates, would have no mandatory power.

On motion by Doctor Maner, seconded by Doctor Anderson, it was voted, as regards the Del Monte session of year 1941, that the councilors live up to the provisions in the by-laws. Motion was carried, Doctor Maner asking that his vote be recorded, "No."

12. **Date of Next Council Meeting.**

It was agreed that Chairman of the Council should call a meeting of the Council at such time and place as in his judgment may be deemed advisable.

13. **Additional Signature for Checks.**

Executive Secretary Hunton suggested that in the absence of the Association Secretary-Treasurer, it would seem advisable that the Executive Secretary be authorized to sign checks, in lieu of the Treasurer. It was so voted.

14. **Insurance Principle in the Care of Needy Member.**

Councilor Anderson discussed briefly a suggestion that had been made that the insurance principle might be used to good advantage in creating a fund for the care of needy members. He stated the subject would be studied by the Special Committee.

15. **Newspaper Publicity.**

Attention was called to an article in one of the San Francisco newspapers dealing with the California Physicians' Service, perusal of which could give a wrong impression of the extent to which the prepayment plan, endorsed by the California Medical Association, was being supported by the State Association members.

The difficulties incident to newspaper publicity during the stress and strain of a convention were pointed out.

16. **Adjournment.**

There being no further business, motion was made to adjourn to meet on call of the Chairman.

PHILIP K. GILMAN, *Chairman.*
GEORGE H. KRESS, *Secretary.*

CALIFORNIA COMMITTEE ON MEDICAL PREPAREDNESS†

California maintained her high standing in the first four months of 1941 in the number of American Medical Association Medical Preparedness blanks filed in Chicago. The report of the American Medical Association Committee on Medical Preparedness, given at the American Medical Association Cleveland annual meeting, shows that California, size considered, had filed a larger percentage of Medical Preparedness blanks than any other large state.

The California Medical Association central office has completed the mailing of Medical Preparedness blanks to all physicians in the state, including osteopaths listed as physicians and surgeons. Incomplete blanks have been prepared for all physicians who did not answer the several calls for this information, and these have been sent to Chicago. A few completed blanks are still being received, but the volume of these is minor compared with some weeks last fall, when as many as 1,000 blanks were received in one week. The following table indicates the number of physicians registered in the larger states, the number of Medical Preparedness blanks filed as of last April 1, and the percentage of returns from each state:

State	Total Physicians	Reported April 1, 1941	Per Cent Reported
New York	28,411	22,590	79.5
Pennsylvania	14,064	10,615	75.5
Illinois	12,683	10,211	80.5
California	12,299	10,480	85.2
Ohio	9,642	8,545	88.6
Massachusetts	8,202	5,632	68.6
Texas	7,056	5,843	82.8
New Jersey	6,070	4,647	76.6

* * *

Physicians and the National Emergency

The "Bulletin of Alameda County Medical Association" printed the following message from the president of the Association, Dr. John W. Sherrick:

Much unjust criticism has been openly expressed by members of the Army Medical Corps against the medical profession and its part in the present emergency. Existing facts do not justify these accusations. This feeling of doubt and mistrust is not held by the Medical Corps of the Navy, which has voiced its gratification and approval of the excellent response shown by its reserve officers and medical specialists units and by the enlisting of other eligible physicians in this branch of national service.

The statement has been made repeatedly from authoritative sources that the Army requires some 7,500 physicians yearly to fulfill its medical needs as planned for the enlargement of the Army. This statement is true, if we assume that there will be a yearly turnover of this number of doctors. As a matter of fact, this will not hold true, as the greater number of the doctors inducted into the Army Medical Corps will undoubtedly be retained in service for the duration of the emergency.

Moreover, reports are available from many of the reserve officers now on active duty with the Army to the effect that there is very little real work available for them to perform. In the face of such a situation, and with civilian needs for medical care so great, many honorable and patriotically minded physicians in civilian practice hesitate to sacrifice their present status until it is demonstrated that there is a more definite and legitimate need for their services.

Again, the criticism leveled against the medical profession fails to give the deserved credit to the thousands of doctors throughout the United States who are giving of their time and of their professional services gratis to the vital work required by the draft inductive boards.

We are justly proud of the record of the members of the medical profession throughout the ages. Based upon previous emergencies that this country has experienced and upon the daily services rendered by physicians in the free clinics throughout the country, etc., we may safely assume that the medical profession will continue to prove true to

†Philip K. Gilman, M. D., 2000 Van Ness Avenue, San Francisco, is chairman of the California Committee on Medical Preparedness. Charles A. Dukes, M. D., 426 Seventeenth Street, Oakland, is a member of the American Medical Association Committee on Medical Preparedness. Roster of county chairmen on Medical Preparedness appeared in CALIFORNIA AND WESTERN MEDICINE, August, 1940, on page 86.

the ideals and the ethics on which it is founded and will not be found wanting in response to the call of our country if the national emergency assumes actual magnitude instead of its present somewhat theoretical significance.

The Alameda County Medical Association, along with similar groups throughout the country, may rest its case in confidence and with justified pride upon its past record and upon the sterling character of its members. We *will not* be found wanting!

* * *

Army to Defer Students of Medicine

San Francisco (AP).—A new plan which will permit junior and senior medical students of Grade A medical schools and interns to complete their training before entering military service was announced yesterday from Ninth Corps Area headquarters.

Major-General Ernest D. Peek, Ninth Corps Area commanding general, said he had received instructions from the War Department that junior and senior medical students may be commissioned first lieutenants in the Medical Corps, with the understanding that they will be ordered to one year's active military duty immediately upon completion of their internship.

Interns and medical students who are appointed reserve officers will not be subject to registration or induction under the Selective Service Act and, therefore, may complete their training, the announcement said.

Applications for reserve commissions from students and interns who live in California, Oregon, Washington, Idaho, Montana, Utah, and Nevada, should be sent to the commanding general, Ninth Corps Area, Presidio of San Francisco.—Sacramento *Union*, June 5, 1941.

* * *

Selectees' Final Medical Examinations Should Be Held Before Induction

"Group examination" of selectees for the United States Army, inaugurated last week in Redwood City and probably in many other communities, sounds like a good solution to the problem of how to save the time of busy physicians who give of their time free of charge when they make examinations of young men about to be drafted.

But—it seems to us this new plan should be accompanied by some changes in the method of giving final medical examinations to the selectees.

Fortunately the Peninsula hasn't had many draftees rejected at the induction center after they had first passed physical examinations in their home towns. But a few have been turned down from this vicinity, and in San Francisco the other day 19 out of 127 men who reported were sent back home.

Each of these nineteen, and others who have suffered a similar fate, had previously made all arrangements to spend a year in camp. They had given up their jobs, severed family ties, perhaps sold possessions, and otherwise gone through a lot of work to get ready to serve their country. Their names had been printed among the list of selectees leaving. Perhaps they had even been given farewell parties.

Then they had to come back home. Their employers had to arrange to take them back to work, which in many cases meant discharging men who had taken their places. They had to suffer the humiliation of explaining why they were at home instead of in the Army.

We have no quarrel with the handling of the examinations by the local physicians. Those doctors are busier than ever now that some of the members of their profession also have been taken into the Army. Certainly they deserve a "break," for the examination of dozens of young men has taken much valuable time of the public-spirited physicians who have agreed to do this work.

But we do think the draft act should be changed to permit all young men to have their final physical examination by Army medical authorities before they sever their civilian ties. Now with "group examinations" being given, even more men than ever may slip by local doctors only to be rejected at the induction center.

The youth who enlists is given seventy-two hours to wind up his affairs after he definitely learns if the Army doctors will accept him. And, recently, draft authorities have permitted men of large business affairs to get an Army medical examination which will indicate whether or not they will be inducted or rejected. The same privilege should be extended to all selectees.—Redwood City *Tribune*, May 26, 1941.

* * *

Outstanding Medical Men Gather in Annual Meeting

With many of the keenest medical minds of the naval and military service present, as well as leading physicians and surgeons of the Pacific Coast, more than two hundred physicians were present last night at a dinner in the Naval Hospital on Mare Island, with naval physicians as hosts.

It was the fourth annual affair staged by the Navy medicos for the physicians of this district, and among the guests were Army and Navy doctors from the San Francisco bay region and all national defense medical centers, as well as members of the Solano County Medical Association.

Dinner was served at eight o'clock, and was followed by an address by Dr. Arthur H. Dearing, chief of the surgical division at the Naval Hospital, Mare Island. Doctor Dearing spoke on field surgery in action, explaining the methods used and the problems which must be solved in the field by military physicians and surgeons.

At the close of Doctor Dearing's talk, motion pictures were shown which gave a detailed account of the medical aspects of landing forces, the establishment of dressing stations, followed by the setting up of clearing hospitals and, finally, base hospitals. Dr. Robert G. Davis, executive officer at the Naval Hospital, was in charge of arrangements for the program.

Many Guests

Among the guests present at the dinner meeting were: Dr. Philip K. Gilman of Stanford University, heading a group of forty physicians who came here last night by chartered bus; a group of thirty United States Army physicians from Letterman Hospital, San Francisco; Dr. Henry Rogers of Petaluma, president of the California State Medical Association; Dr. George H. Kress of San Francisco; Dr. John W. Green of Vallejo, councilor of the Ninth California Medical District; Dr. Dwight W. Murray of Sacramento, public relations counsel for the State Medical Association; and Ben H. Read, secretary of the California Public Health League.—Vallejo *Times-Herald*, June 18, 1941.

* * *

Soldiers Must Think

Modern soldiers must have something more than physical strength and ability to shoot straight. Good physical condition is highly desirable, quite necessary, in fact; but there also must be brains. So says medical authority, after an opportunity to survey today's demands on combative man power. The mental make-up is of first importance. To be able to determine where normality leaves off and disease begins is a test for examiners. "All men are not suited for war service," says one physician experienced in passing on applicants for military duty. "Many men have nervous systems that are not equal to demands."

The whole subject is explored in a symposium conducted for "War Medicine," a new periodical recently created by the American Medical Association and the Division on Medical Sciences of the National Research Council. The topic discussed is "Psychiatric Factors in the Medical Examination." It is said to be imperative that soldiers be mentally fit. Modern warfare has a chief weapon in exaggerated fear, induced by whistling bombs, threats in advance of actual combat, by horrible examples, and by terrifying tales.—Grass Valley *Union*, June 19, 1941.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION†

Regarding Osteopathic Interns in United States Army*

In re: H. R. 4476 (and later Measure H. R. 4965).

H. R. 4476

H. R. 4476 bore the title "A Bill Providing for Sundry Matters Affecting the Military Establishment." As introduced, the only provision of primary medical interest, as stated in Federal Legislative Bulletin—4, page 6, was contained in Section 1, authorizing the Secretary of War:

"to provide for the employment of interns in the Medical Department, at not to exceed $720 per annum."

The bill has now been reported to the House of Representatives in Washington, in an amended form. Under the

---

† Component County Societies and California Medical Association members should not give endorsements to proposed legislation unless the California Medical Association Committee on Public Policy and Legislation has so requested. On such matters, address: California Medical Association Committee on Legislation, Dwight Murray, M. D., Chairman, 450 Sutter, San Francisco. Telephone, DOuglas 0062.

* For editorial comment, see page 4.

amended bill the Secretary of War will be authorized, the italics being new:

"to provide for the employment of internes *who are graduates of or have successfully completed at least four years' professional training in reputable schools of medicine or osteopathy* in the Medical Department, at not to exceed $720 per annum."

As justification of the employment of interns in the Medical Department, the report of the House Committee on Military Affairs states:

"This will permit the War Department to give certain selected Reserve Officers' Training Corps graduates an additional year of instruction under Medical Corps supervision, thus *insuring a high standard for officer candidates for the Medical Corps.* The proposed rate of pay compares favorably with that paid in civilian hospitals."

General Comment.—The Committee of the House of Representatives does not, in its report, attempt to justify the employment of graduates of osteopathic schools nor can their employment be justified.

Osteopaths are ineligible for appointment as medical officers in the Army Medical Corps and, therefore, the employment of graduates of osteopathic schools as contemplated by the pending bill could serve no possible good purpose. They would not be eligible for appointment in the Medical Corps after being so employed.

H. R. 4965 (HARNESS) IS A SIMILAR MEASURE

It has been passed by the House of Representatives, and is now (June 12, 1941) under consideration by the Committee on Appropriations of the United States Senate (as an amendment to an important appropriations bill).

Comment.—What has been stated above concerning H. R. 4476 applies with equal force to this amendment to H. R. 4965 which was introduced by Representative Harness of Kokomo, Indiana. The soldiers in the United States Army are entitled to medical care of the highest standard. The standard set should apply to all groups of healing-art practitioners. Any other plan will make for confusion and less efficient service.

* * *

Bill Aimed at Alien Doctors Is Okehed

Doctors who are citizens of countries which refuse to admit American physicians and surgeons to practice will be denied the privilege of establishing private offices in California.

This restriction will go on the statute books despite the gubernatorial veto of A. B. 1475, by Assemblyman Roger Alton Pfaff of Los Angeles County. Both houses overrode the veto.

Under the terms of the measure, the alien doctors would be permitted to work in hospitals and research laboratories, however. . . .—Sacramento *Bee*, June 16, 1941.

* * *

Olson Vetoes Curb on Quack Medical Groups

Sacramento, June 4 (INS).—Governor Culbert L. Olson today vetoed the Cain bill, which sought to put further restrictions upon "quack" medical treatments.

Authored by Assemblyman Edward Cain, Sacramento, the measure would have added to statutes against unprofessional conduct the actual practicing of any mode of treatment which tends to deceive the public. Olson said in his veto message.

"There can be no objection to legislation prohibiting a mode of treatment intended to deceive, but my objection to the bill arises out of the language used."

A measure making plainclothes men of the department of motor vehicles bona fide members of the state highway patrol was signed into law by Governor Olson.—Fresno *Bee*, June 4, 1941.

* * *

Assembly Approves Examination Bill

Lower House approval was voted today, 43 to 27, for a bill which would require all cooks, waiters, waitresses, busboys, and domestic servants in California to obtain certificates showing they are free from communicable diseases.

The proposal, A. B. 1570, was introduced by Assemblyman Frederick F. Houser of Los Angeles County. The health certificates could be obtained from the State Department of Public Health, local health agencies or private physicians. Renewals would be required once a year.—Sacramento *Bee*, June 3, 1941.

Olson Signs Bills

Sacramento, June 25 (AP).—Governor Olson has signed a series of legislative bills, including A. B. 1065, by Assemblyman Lee Bashore, Glendora, making it a misdemeanor if a doctor does not treat both eyes of an infant within two hours after birth with a prophylactic efficient treatment.—San Francisco *News*, June 25, 1941.

COMMITTEE ON PUBLIC HEALTH EDUCATION†

Basic Science Initiative

Progress on the proposed Basic Science Law has been rapid in the past few months, and before the next issue of CALIFORNIA AND WESTERN MEDICINE goes to press the Committee on Public Health Education expects to have the initial signatures on initiative petition forms in its hands. The adjournment of the Legislature has left the Public Health League of California, which will handle the initiative petition work, free to work on the Basic Science Law, and before long a state-wide program will be under way.

Present plans are for the inauguration of the signature campaign in one county, probably in the southern part of the state. Results in the test county will govern the rest of the campaign and will point out any weak spots in the methods contemplated for this work.

Physicians and dentists will be called upon for the start of the signature work, with members of the Woman's Auxiliary to be brought into the picture a little later as one state-wide unit. Office assistants, nurses, friends, and purveyors in allied lines will also be asked to help in the task of securing the 212,117 valid signatures needed to place the Basic Science Law on the ballot of the next state general election.

Petition forms are already printed, promotional material is ready. From now on, the success of the campaign will depend in great measure on the efforts put forth by the physicians and dentists themselves.

This law has been in the making for the past ten years. It is hoped that all the effort spent on it to date will be amply supported by the work of the profession in the next twelve months in placing the law on the ballot.

* * *

Tehama County Medical Society Has Exhibit at County Fair

The Tehama County Medical Society, Dr. R. G. Frey, President, has arranged for a wonderful exhibit for the attendees at the Tehama County Fair. They have been fortunate in being able to secure the medical exhibit that was shown and well attended and well liked at the Golden Gate Exposition. Also they have been able to secure for this exhibit the cancer film, "Choose to Live." Also they will pass out instructive literature to those visiting the exhibit. At the present time they are making arrangements for other films on medical subjects that they think will be of interest to the people attending the Fair.

The Tehama County Medical Society is composed of the following: Doctors O. T. Wood, Don Thompson, Roderick Thompson, H. H. Beck, R. G. Frey, F. J. Baily, A. H. Meuser, J. H. Belyear, and F. L. Doane.

The Society's exhibit will be in charge of Dr. F. L. Doane and Dr. Roderick Thompson.—Red Bluff *Daily News*, June 12, 1941. (See also editorial comment, on page 2.)

† The Committee on Public Health Education was established through Substitute Resolution No. 6 at the Del Monte annual session, May 3, 1939.

The Committee on Public Health Education consists of Frank R. Makinson, chairman, Oakland; Philip K. Gilman, secretary, San Francisco; Samuel Ayres, Jr., Los Angeles; Thomas A. Card, Riverside; James F. Doughty, Tracy; Lowell S. Goin, Los Angeles; Junius B. Harris, Sacramento; Henry S. Rogers (ex officio), Petaluma. Communications to the committee may be addressed to Frank R. Makinson, M. D., chairman, Wakefield Building, Oakland, or to the California Medical Association office, 450 Sutter Street, San Francisco.

California Fairs—Tentative Dates for 1941*

Serial No.	Dates Held	Inclusive Days	County (Name)	Place Held	Fair Secretaries
1	Mar. 1- 9	Sat.-Sun.	Imperial County Mid-Winter Fair	Imperial	D. V. Stewart
2	13-23	Tu.-Sun.	National Orange Show	San Bernardino	William Starke
3	May 16-18	Fri.-Sun.	Solano County Fair	Dixon	M. E. Morgan
4	16-18	Fri.-Sun.	Calaveras County Fair	Angels Camp	Joseph Rydberg
5	22-25	Thu.-Sun.	Butte District Fair	Chico	Mrs. Sylvia Cooke
6	30-June 1	Fri.-Sun.	Mariposa County Fair	Mariposa	George W. Robinson
7	June 12-14	Thu.-Sat.	Tehama County Fair	Red Bluff	Jens C. Petersen
8	20-22	Fri.-Sun.	Placer District Fair	Auburn	Ray Carlisle
9	July 3-12	Thu.-Sat.	Alameda County Fair	Pleasanton	Ernest Schween
10	4- 6	Fri.-Sun.	Silverado Fair and Horse Show	Calistoga, Napa County	Frank Piner
11	17-20	Thu.-Sun.	Napa County Fair	Napa	Harrison Cutler
12	23-27	Wed.-Sun.	Santa Barbara County Fair	Santa Maria	J. H. Chambers
13	25-27	Fri.-Sun.	Sonoma-Marin Fair and American Legion Horse Show	Petaluma	Dolph Young
14	30-Aug. 3	Wed.-Sun.	Sacramento County Fair	Galt	E. Kenefick
15	Aug. 1- 3	Fri.-Sun.	Stanislaus County Fair	Oakdale	E. W. Zimmerman
16	2- 9	Sat.-Sat.	Sonoma County Fair	Santa Rosa	Ralph H. Brown
17	8-10	Fri.-Sun.	Placer County Fair	Roseville	H. A. Crockard
18	8-10	Fri.-Sun.	Contra Costa County Fair	Antioch	Alden Sutton
19	11-16	Mon.-Sat.	Stanislaus District Fair	Turlock	Dr. A. J. Ronsse
20	12-17	Tu.-Sun.	Humboldt County Fair	Ferndale	Dr. J. N. D. Hindley
21	14-17	Thu.-Sun.	Plumas County Fair	Quincy	W. P. Cowan
22	16-24	Sat.-Sun.	San Joaquin County Fair	Stockton	E. G. Vollmann
23	21-24	Thu.-Sun.	Nevada County Fair	Grass Valley	Loyle Freeman
24	21-24	Thu.-Sun.	Butte County Fair	Gridley	V. W. Tull
25	22-24	Fri.-Sun.	Mendocino District Fair	Ukiah	Norman G. Buhn
26	23-24	Sat.-Sun.	Trinity County Fair	Hayfork	J. D. Rourke
27	29-Sept. 7	Fri.-Sun.	California State Fair	Sacramento	Kenneth R. Hammaker
28	30-Sept. 1	Sat.-Mon.	Lake County Fair	Lakeport	H. G. Crawford
29	30-Sept. 1	Sat.-Mon.	Siskiyou County Fair	Yreka	W. L. Kleaver
30	Sept. 4- 7	Thu.-Sun.	Modoc County Fair	Cedarville	J. Ray Golden
31	11-13	Thu.-Sat.	Shasta District Fair	Anderson	Dudley Saeltzer
32	11-14	Thu.-Sun.	Merced County Fair	Merced	J. J. Uhle
33	12-14	Fri.-Sun.	El Dorado County Fair	Placerville	John Winkelman
34	12-14	Fri.-Sun.	Amador County Fair	Plymouth	Mrs. Goula Walt
35	12-28	Fri.-Sun.	Los Angeles County Fair	Pomona	C. B. Afflerbaugh
36	16-20	Tu.-Sat.	Glenn County Fair	Orland	J. J. Flaherty
37	17-21	Wed.-Sun.	Del Norte County Fair	Crescent City	C. A. Cronkhite
38	18-21	Thu.-Sun.	Sutter-Yuba Fair	Marysville	J. A. Fredericks
39	18-21	Thu.-Sun.	San Mateo County Fiesta	San Mateo	Chester Lipman
40	19-21	Fri.-Sun.	Tuolumne County Fair and Horse Show	Sonora	Mrs. Francis Graham
41	19-21	Fri.-Sun.	Yolo County Fair	Woodland	Harry Crego
42	22-27	Mon.-Sat.	Tulare-Kings County Fair	Tulare	A. J. Elliott
43	24-28	Wed.-Sun.	Humboldt District Fair	Eureka	Randolph Smith
44	25-28	Thu.-Sun.	Monterey County Fair	Monterey	V. V. Adams
45	25-28	Thu.-Sun.	Colusa County Festival	Colusa	Daniel E. Weygand
46	30-Oct. 5	Tu.-Sun.	Fresno District Fair	Fresno	T. A. Dodge
47	Oct. 4-12	Sat.-Sun.	San Diego County Fair	Del Mar	D. A. Noble
48	4-12	Sat.-Sun.	Santa Clara County Fair	San Jose	Russell Pettit
49	8-12	Wed.-Sun.	Ventura County Fair	Ventura	John Lagomarsino
50	9-12	Thu.-Sun.	Madera County Fair	Madera	H. J. Bunce
51	10-12	Fri.-Sun.	San Benito County Fair	Hollister	J. M. Leonard
52	16-19	Thu.-Sun.	Santa Cruz County Fair	Watsonville	M. W. Johnson

* The above outlines a tentative list of State and County Fairs, with dates: Legends for days: Mon.—Monday; Tu.—Tuesday; Wed.—Wednesday; Thu.—Thursday; Fri.—Friday; Sat.—Saturday; Sun.—Sunday.

The "days" given in this list are the first and the last days of the dates noted (without regard to whether days cover more than one week).

For editorial comment concerning Fairs, see page 1.

COUNTY SOCIETIES†

CHANGES IN MEMBERSHIP

New Members (29)

Los Angeles County (8)

Frank S. Bissell, *Los Angeles*
Ralph Culbertson Cloninger, *Los Angeles*
Fridolin Hammerly, *Los Angeles*
John I. Litwinenco, *Pomona*
Olin Paul, *North Hollywood*
Frederick C. Schlumberger, *Los Angeles*
Paul Franklin Seitter, *San Fernando*
W. Benjamin Stewart, *Los Angeles*

Marin County (2)

Brooks Pringle, *San Anselmo*
Katherine Thomas, *San Anselmo*

Merced County (1)

Laurence E. Smith, *Merced*

Orange County (1)

Elmo Alexander, *Fullerton*

Sacramento County (2)

Laura Levinson, *Sacramento*
John G. Walsh, *Sacramento*

San Bernardino County (2)

O. J. Johnson, *Colton*
Miller Harold Randall, *Chino*

San Francisco County (4)

Phyllis Harroun, *San Francisco*
Earl Roy Miller, *San Francisco*
Albert John Porporato, *San Francisco*
Thomas Haynes Roberts, *San Francisco*

San Joaquin County (2)

H. C. Petersen, Jr., *Stockton*
Hildegard L. Waasa, *Stockton*

San Mateo County (3)

H. A. Clattenburg, *Redwood City*
Francis N. Hatch, *Redwood City*
W. B. Hurlbut, *San Mateo*

Santa Barbara County (1)

Woodrow W. Schmela, *Santa Barbara*

Santa Clara County (2)

Robert D. Lane, *San Jose*
Howard William Lytle, *San Jose*

Yolo County (1)

James L. Porter, *Woodland*

† For roster of officers of component county medical societies, see page 4 in front advertising section.

Transfers (4)

Gilbert S. Coltin, from San Luis Obispo County to San Bernardino County.

Vernon E. Greer, from Butte-Glenn County to Sacramento County.

Lester S. McLean, from Riverside County to San Bernardino County.

Middleton P. Stansbury, from Solano County to Yolo County.

Retired Members (12)

Richard W. Baker, Sunland
Willoughby G. Dye, Los Angeles
Edgar James Farrow, San Diego
William C. Finch, Los Angeles
William A. George, Loma Linda
Michael W. Kapp, San Jose
Ross C. Martin, San Bernardino
Truman A. Parker, La Jolla
Minnie A. Seavey, Sacramento
Peter M. Suski, Los Angeles
Emma K. Willits, San Francisco
Frank A. Yoakam, Moorpark

In Memoriam

Freytag, Charles Fred. Died at Hollywood, June 11, 1941, age 59. Graduate of Rush Medical College, University of Chicago, 1905. Licensed in California in 1923. Doctor Freytag was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Hablutzel, Charles Edward. Died at San Jose, May 31, 1941, age 76. Graduate of Cooper Medical College, San Francisco, 1895. Licensed in California in 1895. Doctor Hablutzel was a retired member of the Santa Clara County Medical Association, the California Medical Association, and a member of the American Medical Association.

✝

Hanlon, Edward William. Died at San Francisco, June 3, 1941, age 69. Graduate of Columbia University College of Physicians and Surgeons, New York, 1893. Licensed in California in 1894. Doctor Hanlon was a member of the San Francisco County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

McArthur, Duncan Donald. Died at Los Angeles, May 30, 1941, age 69. Graduate of University of Southern California School of Medicine, Los Angeles, 1905. Licensed in California in 1907. Doctor McArthur was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Schmelz, Charles Joseph. Died at Guerneville, June 2, 1941, age 76. Graduate of University of California Medical School, Berkeley-San Francisco, 1895. Licensed in California in 1895. Doctor Schmelz was a retired member of the Sonoma County Medical Association, the California Medical Association, and a member of the American Medical Association.

OBITUARY

Alfred William Macpherson
1901–1941

Doctor Macpherson was graduated from the College of Medical Evangelists in 1929. He received special training in anesthesiology at the University of Oklahoma Hospital, Oklahoma City. At the time of his death he was assistant professor of anesthesiology at the College of Medical Evangelists and an active staff member in his chosen line at the White Memorial Hospital.

Doctor Macpherson was a member of the Los Angeles County Medical Society, the California Medical Association, the American Medical Association, the International Anesthesia Research Society, and the American Board of Anesthesiology.

Doctor Macpherson died on June 18, 1941, at the age of 39 years, 9 months. Death was caused by complications following surgery for a chronic intestinal ailment.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. HARRY O. HUND.....President
MRS. RENE VAN DE CARR.....Chairman on Publicity
MRS. ROSSNER GRAHAM.....Asst. Chairman on Publicity

Address of President*

The Woman's Auxiliary to the California Medical Association deeply appreciates the opportunity granted the president to appear before your general session and to tell you something about the activities of our organization.

Existing now for the past twelve years, we are steadily increasing in membership, in activities, and we hope, in influence.

"Preparedness to Better Serve Humanity" has been the theme chosen for our slogan.

We believe that, at the present time when medicine is under attack by the Government, and threatened with regimentation despite the United States' maintenance of the highest health record in the world, we can best serve our parent organization by stressing public relations and public health activities.

As stated in our Constitution, Article 2: "The first objective of the Woman's Auxiliary is to interpret the aims of the medical profession to other organizations interested in the promotion of health education."

To be able to do this, we ourselves must be informed. The majority of our monthly programs, therefore, are planned for self-education, that our objectives may be more completely fulfilled.

We believe that, if we can assist in promoting a better understanding with the public, we have justified our organization.

The majority of you are our friends and well-wishers, and realize the service possibilities of the Auxiliary.

To that small minority, however, who, by not fully realizing the coördination of the Woman's Auxiliary with the California Medical Association, are keeping us from

---

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Rossner Graham, Assistant Chairman on Publicity, 6101 Acacia Avenue, Oakland. Address of the Chairman on Publicity: Mrs. Rene Van de Carr, 51 Prospect Road, Piedmont.

For roster of officers of state and county auxiliaries, see advertising page 6.

* Address given at the first general session of the seventieth annual session of the California Medical Association, Del Monte, May 5-8, 1941.

organizing those last eleven counties in California, we are presenting the following list of our achievements:

Your House of Delegates, in session here at Del Monte in 1937, unanimously voted for the formation of an Auxiliary to every county medical society. Nevertheless, we have been told that the doctor's wife's place was in the home answering the telephone while her husband goes to medical society meetings. Were that true, you know that you would find us deadly dull after awhile. We have been accused of being nothing but a political lobby!

In addition to stressing need for self-education, there has been an earnest endeavor to make ourselves more useful by promoting greater friendliness and better understanding among our members. The result is, our membership has grown 8.6 per cent.

Subscriptions to *Hygeia* have increased 39.6 per cent, and 300 copies being placed each month in public places.

The sum of $100 has been contributed toward the purchase of a movie projector, so that the doctors in a certain county could present medical and health programs before groups of laymen.

We hold membership in the Public Health League to keep better informed on legislation affecting medicine; and we also belong to the League of Women Voters that we may be able to use our influence against candidates hostile to medicine.

We have membership and chairmanships on public relations committees in various clubs to enable us to influence the types of programs presented.

Five subscriptions to *Readers Digest* in Braille have been purchased.

Five scholarships for worthy medical students are provided annually.

One scholarship is made possible annually for a worthy girl in nursing training.

Public speaking contests on health subjects in high schools and junior colleges are helping to make our youth health conscious.

We have responded whole-heartedly to Dr. Philip Gilman's request for assistance on the Medical Preparedness questionnaire. The members of one county made 2,000 telephone calls.

Some 596 Parent-Teacher Association members were contacted by one Auxiliary and medical speakers were supplied to the majority of them.

Twenty-one Auxiliaries are aiding in Cancer Control projects, and every one of the twenty-eight Auxiliaries has provided speakers and health material for lay groups.

Five Auxiliaries have held all-day health conferences.

One county Auxiliary has developed a "Medical Information, Please" panel which presents medical information to lay groups in a most successful manner. This has been one of the outstanding public relations projects of the year.

Many counties have had "Reciprocity Teas." From 200 to 500 persons have attended each of these affairs and listened to a well-qualified medical speaker. You can easily see that such activities have brought about the necessity of developing some orators among you doctors.

Some 2,400 hours of work have been given to the Red Cross, and $800 has been raised for the British Relief, and 10 cases of medical instruments and equipment collected.

Two Hearing Aids for a school, and an Infant Resuscitator for a hospital have been purchased.

In addition to these activities, we have undertaken to raise funds for medical benevolence, and so far this year, $1,600 has been secured.

Annual physical examinations for doctors' wives have been advocated by those who believe that, by setting the example, many of the laity will follow our example and avoid some of the common tragedies of youth and middle age, such as tuberculosis and cancer.

We have promoted district meetings, bringing together officers, prospective officers and members for round-table discussions, and a symposium on "How to Improve the Auxiliary."

We are most appreciative and grateful for the help and guidance received from the Advisory Council.

Whatever we may have accomplished, we have tried to have "tolerance for the ideas of each and every group of individuals, charity for our neighbors, and a unity of purpose in our auxiliary life as we have striven to attain our goal of usefulness to our National, our State, and our County Medical Association." In the words of the president of our youngest Auxiliary, "We feel that, with this foundation, we can accomplish anything we set out to do."

Respectfully submitted,

MRS. A. E. ANDERSON, *President.*

* * *

News Items

Mothers of doctors and members were honored at a luncheon meeting, held at Claremont Country Club on May 16 by Alameda County. A report of the State Convention was given by Mrs. Carson Hunt. Mrs. Ira Church, who concluded a very successful year as president, presided, and gave a report of the activities and accomplishments of the organization. After the installation of officers, the meeting was turned over to the new president, Mrs. Abbott Crum, who addressed the group. Entertainment was provided by Alice Weaver (Mrs. Don Weaver) in a play reading.

* * *

Mrs. Ralph B. Eusden, retiring president of the Los Angeles County Auxiliary, presided at the final luncheon meeting of the year. On behalf of the Auxiliary, Mrs. Eusden presented a framed scroll to Mrs. James Percy in recognition of her myriad services. An address was given by Dr. William Molony, Sr. Mrs. William C. Boeck, incoming president, and her board were inducted into office at an impressive ceremony conducted by Mrs. Percy.

* * *

Rio Del Mar Country Club was the setting for the May meeting of Santa Cruz County. Doctors' wives from Camp McQuaide were guests. A book review, "Life With Father," was presented by Mrs. Frank Cralle.

R. V. C.

CALIFORNIA PHYSICIANS' SERVICE†

BENEFICIARY MEMBERSHIP

September, 1939	1,220
March, 1940	9,322
September, 1940	17,398
March, 1941	24,107
June 20, 1941	28,000

* * *

Dr. Frank R. Makinson of Alameda County has resigned as a trustee of California Physicians' Service due to pres-

†Address: California Physicians' Service, 333 Pine Street, San Francisco. Telephone EXbrook 3211. A. E. Larsen, M. D., Secretary.
Copy for the California Physicians' Service department in the OFFICIAL JOURNAL is submitted by that organization.
For roster of nonprofit hospitalization associates in California, see in front advertising section on page 3, bottom left-hand column.

sure of work and additional responsibility placed upon him by his election as councilor for the California Medical Association. Dr. Clifford W. Mack of Alameda County has been appointed to fill the vacancy and will serve until the next regular meeting of administrative members.

* * *

As a result of the action of the Council of California Medical Association at Del Monte, component county medical societies are naming personnel of committees to coördinate with California Physicians' Service. According to the wording of the resolution, "The function of these committees shall be to contact the Board of Trustees of the California Physicians' Service for the purpose of bringing to their attention the various reactions of the plan from their respective committee areas and to offer such assistance as may be useful to or necessary for the furtherance of the plan as it stands, or to offer such suggestions as may be considered pertinent to the modification of the plan, as instructed by their respective committee areas."

To further the work of these committees, the Board of Trustees of California Physicians' Service has requested the Secretary to develop within the California Physicians' Service office a uniform system of monthly progress reports for regular transmittal to the secretaries of county medical societies and through these secretaries to the chairmen of the local county coördinating committees. It is hoped that the secretaries of the local county medical societies will make a place on the regular agenda of the society for a report on California Physicians' Service.

The Board of Trustees of California Physicians' Service is anxious to work closely with such committees and is hopeful that they will serve as successful liaison groups between the members of the medical profession and the organization created by it, California Physicians' Service.

* * *

During the month of March, 1,926 professional members of California Physicians' Service saw 4,996 patients, making a total of 14,124 visits. This represents 26,317.7 units of service, of which 16,311.7 were medical, 4,868.0 were surgical, 3,109.9 were x-ray, 1,895.7 were laboratory, and 132.4 were refractions.

* * *

M. D. Group Aid Studied by Junior Bar

Meeting Thursday Will Consider Physicians' Plan

Thursday evening at five the Junior Barristers of the Los Angeles Bar Association are holding a general membership meeting in the cafeteria room of the Title Insurance & Trust Company Building, to consider joining the California Physicians' Service. The Barristers Club, corresponding group in San Francisco, joined some time ago.

This plan, which was recommended by the Junior Barristers Committee on Group Medical Insurance as best adapted to the needs of the young professional man, is carried on by a group consisting of substantially all the physicians and surgeons in the State of California.

California Physicians' Service is unique in that it maintains the ordinary private doctor payment to be made on an insurance basis, at the rate of $1.70 per month per member, with full hospitalization being afforded in almost any hospital the member may choose for an additional 80 cents per month.

The patient is known under the plan as a beneficiary member and is treated by any doctor he may choose from the panel of five thousand or more M. D. members.

The beneficiary member's life goes on just as it did before as regards medical attention, except that he lives with the pleasant feeling that medical expense is now a definitely fixed and budgeted item set at a comfortably low figure.

Beneficiary membership is limited to persons with incomes below $3,000 per year since the program was instituted for the sociological purpose of aiding persons in the lower-income brackets.

A representative of the California Physicians' Service will be present at the Thursday meeting to explain the plan in full and to answer the questions which such a proposal may suggest to legal minds. The members are urged to turn out en masse, for their committee feels the plan could be worth enough to the individual members to deserve a full and fair hearing.—Los Angeles *News*, June 23, 1941.

Alcoholic Polyneuritis Cases Not Aided by Extra Vitamins.—"The average time spent in the hospital by patients suffering from alcoholic polyneuritis [inflammation of many nerves at once] who were discharged as well, improved, or relieved was the same regardless of whether the routine house diet or intensive vitamin therapy [treatment] in addition was prescribed," Dr. Madelaine R. Brown, Boston, reports in *The Journal of the American Medical Association*. "The economic aspect of this conclusion is apparent," she adds.

Her findings are based on a study of 236 patients with uncomplicated alcoholic polyneuritis, half of whom received the regular hospital diet and the other half intensive vitamin treatment. In the introduction of her paper, she says:

"No subject today is possessed of more ramifications or is more colored by emotion than vitamins. Too many recent publications are based on a small uncontrolled series of patients and a large amount of wishful thinking. In the evaluation which follows, no opinion is offered as to the part vitamins play in the etiology [cause] or in the treatment of alcoholic polyneuritis. The question is not whether vitamins are necessary in the treatment of polyneuritis, but how much of these substances regenerating neurons [nerve cells] can utilize. Can they utilize more than are present in a diet adequate for a healthy person? In the hope of shedding light on this question, some figures on ward patients receiving the house diet are compared with those on patients receiving intensive vitamin therapy. It should be emphasized that the house diet is not deficient, that it is adequate in all vitamins and that it is a far better diet than that to which the majority of patients in the Boston City Hospital have been accustomed."

There was no significant difference in the time spent in the hospital by the two groups of patients who had mild or moderate degrees of polyneuritis, she found.

"The results obtained among patients with severe or very severe neuritis," Doctor Brown points out, "are of little value, regardless of the type of therapy, since severe nerve degeneration has taken place and regeneration is a matter of many months."

Her study was based upon the records of the Boston City Hospital during the years 1920 through 1938. This period, she says, "was chosen because patients admitted in the first half of this period, that is 1920 to 1929, were given routine house diet with no additional vitamins, whereas the group admitted in the years 1930 to 1938 received exactly the same treatment as the first group, with the exception that the house diet was supplemented by vitamins in the form of fruit juices, egg nog, salad, cod-liver oil and vegex or brewers' yeast tablets. In addition, some of these patients were given parenteral injections of liver extract and thiamin [synthetic vitamin B_1], thus affording a comparison of the efficacy of the whole vitamin B group in the therapy of polyneuritis associated with chronic alcoholism."

When to Clean the Teeth.—For maximum effectiveness, teeth should be brushed directly after meals, *Hygeia, The Health Magazine* points out. Scientific reports indicate that the conversion of refined carbohydrates to acids through action of bacteria in the mouth may be surprisingly rapid. These acids are responsible for the initial phase of tooth decay. Certain soft deposits which later harden to form the substance known as calculus also are more easily removed directly after meals than at a later time.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-Five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Stanford Symposium: Harvard Physiologist Urges Medical Attack on Disabilities Accompanying Old Age. A medical attack on the diseases and disabilities of old age, which have been given new importance by the advancing age level of the general population, was proposed at the Stanford symposium yesterday by Dr. Walter B. Cannon, Harvard University physiologist, in a review of problems confronting the medical profession.

"Almost none of the most prominent disorders of senescence is understood," he said. "The prevailing ignorance, we may assume, is largely due to lack of systematic study.

"Death, of course, must come when one or another vital organ fails its duties, but while life lasts no effort should be spared to make it a good life.

Many Triumphs.—Medical science, Doctor Cannon said, has achieved many a "beneficent triumph" over such diseases as typhoid fever, diphtheria, pellagra, tuberculosis, malaria, yellow fever, hookworm infections and child-bed fever, but it knows much less about diabetes, cancer, hardening of the arteries and other diseases attendant upon advancing age.

Still less, he said, has it done toward conquering calamities of old age that may not kill, but sorely torment, such as rheumatism, chronic inflammation of the bronchial tubes, asthma, persistent itching, "which can render the period of senescence wearisome and miserable."

The importance of attacking these diseases, Doctor Cannon said, comes from the advancing age level of the population because of a decreased birth rate on one hand and a greatly increased life expectancy, largely as a result of medical science, on the other. By 1980, under the present trend, 14 per cent of the population of the United States will be 65 or older—22 millions instead of the 3 millions of forty years ago, he said.

Study Mechanism.—As a foremost subject of study, Doctor Cannon suggested the mechanism which keeps the body's life fluids in delicate balance.

A second new problem presented as a result of the changing social structure, he said, is that of the increase of nervous disorders, manifested by increased insanity, and rate of suicide.

"The ways in which the processes of the brain produce disturbances are little comprehended and the devices which might be employed for prevention or cure have not received the scientific attention which their importance demands," he said. "In the great asylums custodial care continues to be almost the only type of treatment. And meanwhile the problem grows constantly greater and more startling."

The study of drugs and their use in healing is another great and insufficiently explored field challenging medicine, Doctor Cannon asserted.

Drugs Important.—Modern miracles such as the cure of types of insanity, the banishing of diphtheria, the conquering of anemia, have been achieved through the use of drugs, yet "in about a third of the medical schools of the United States there is no independent department devoted to the experimental study of the action of drugs and their use in treating disease."

That these problems be attacked in America becomes more important because of the war in Europe, Doctor Cannon said.

"It seems probable," he declared, "that for years to come the need to repair the wreckage and the appalling waste resultant from the present titanic strife will leave European nations in such poverty that scientific studies will be sadly slighted."

A final problem, Doctor Cannon concluded, is that medical investigators must see to the filling of their own ranks, that the advantages that medical research possesses over general practice be made known to students.—Palo Alto *Times*, June 19, 1941.

Colleges Plan Faster Pace.—To give students complete college educations before they are called for military service, between 400 and 500 liberal arts colleges this fall will offer three-year programs to replace the standard four-year courses.

Summer vacations and holidays will be cut to a minimum, Dr. Guy E. Snavely, executive director of the Association of American Colleges, said recently in disclosing the plan.

Doctor Snavely said the theory behind the plan is that young men entering college at eighteen—the average age for college entrance—will have completed their college education by the time they have reached draft age. Younger students will not be encouraged to take the speed-up course.

In operation, the plan means that students will attend three terms each year instead of two. Many colleges are making arrangements for twelve-week summer sessions instead of the usual six weeks. More than one hundred will introduce summer courses for the first time next month.

Faculty members will be on call the year round, at least for the duration of the emergency.

He said many institutions are threatened with enrollment losses because of the draft and the volunteering of many students. He declared he believes that the three-year program may be the only way for many small liberal arts colleges to continue in existence.

Press Clippings.—Some news items from the daily press on matters related to medical practice follow:

Medical Association Critics Are Scored

Cleveland, June 3 (AP).—The American Medical Association was exhorted to defend its policies against "destructive criticism by authors whose mental processes seem to have been influenced by Moscow or Berlin."

Retiring President Nathan B. Van Etten of New York accused certain "special interest groups of attacking the American Medical Association as 'a selfish, reactionary, anti-social, restraining influence, opposing activities of those desiring to practice group medicine.'

"The old idle talk about a small group of persons dictating the policy of the American Medical Association still goes on," he declared before the American Medical Association House of Delegates at the opening of the Association's ninety-second annual meeting.

He reported three American Medical Association executives have been called a "triumvirate of dictators," and identified the three as Dr. Olin West, treasurer; Dr. Morris Fishbein, editor; and Dr. Will C. Braun, business manager, of the Journal of the American Medical Association.

"I have never heard or seen any of them attempt to originate any policy," he commented.

A survey showing 95 per cent of the nation's physicians willing to support military service was cited as evidence of the Association's integrity.

The Association's controversial policy of "free choice of physician" was reported to have stood the test of seven turbulent years.

The House of Delegates was called upon to fight for establishment of a national health department to be headed by an officer of cabinet rank.—Fresno *Bee*, June 3, 1941.

* * *

Doctor Dukes Elected Vice-President of Medical Association

Dr. Charles A. Dukes of Oakland, a long-time leader in the affairs of organized medicine, is the new vice-president of the American Medical Association.

He was selected yesterday afternoon at the convention of the American Medical Association in Cleveland, according to an Associated Press dispatch.

Doctor Dukes retired a year ago as president of the California Medical Association. He has been vice-president of the American College of Surgeons and president of the Alameda County Medical Society.—Oakland *Tribune*, June 6, 1941.

* * *

Sickness and Accidents Are Defense-Effort Foes

Dr. Thomas Parran, Surgeon-General of the United States, declared at a recent meeting of the American Medical Association that it is high time the nation endeavored to make her man power as good as her machines.

The latter rarely break down, but the former do so with slight provocation. Doctor Parran says there were 350,000,000 man days lost in 1940 because of illness and industrial accidents. That is equivalent to 1,000,000 men working a full year. And if 10 per cent of this loss could be prevented it would be sufficient to build twelve cantonments of average size or five battleships or 16,407 combat tanks.

The country should not remain complacent concerning this loss of labor power at a time when national defense calls for the utilization of every bit of available skill because a day's work lost through sickness or preventable accident is gone forever.

That is sufficient reason why every man should do all in his power to guard himself against disease and to preach and practice safety. He owes it to himself and to his country.—Fresno *Bee*, June 18, 1941.

* * *

Modern Medicine

(*This is the first of a series of articles on some of the ideals and objectives of modern medicine, as defined by the San Francisco County Medical Society.*—The Editor.)

The United States, living under its free enterprise system of government—and of medicine—has the lowest death rate in the world today, a report released by the San Francisco County Medical Society declared today.

"The free enterprise system of the United States permits any man to go as far as his abilities will take him," the report stated.

Free Enterprise Praised

"All of us know what this free enterprise system has produced. It has given us the highest standard of living in the world. It has given the typical worker a higher paid job and a shorter work-week than is known anywhere else. It has given the average man and woman more of the luxuries and necessities than their counterparts enjoy in any other nation. It has given them more security, in the form of homes, insurance, bank deposits and other forms of saving.

"All of this has been done under that free enterprise system—the individualistic system, so to speak. And that system has given us more than goods and chattels. For example, in the field of medicine we can see again what private enterprise achieves.

United States Deaths Far Fewer

"In 1936 there were 11.5 deaths per each 100,000 of population from diphtheria in Germany. There were 8.6 in England. There were but 1.5 in the United States. There is one qualified physician for each 767 people here—as against one for each 1,069 in England, one for each 1,307 in Germany, and one for each 1,596 in France. In the totalitarian states, where Government dominates medicine, and the bureaucrats pick the doctors, almost all diseases are increasing. Here all are decreasing—and rapidly.

"So does American medicine, like American industry, serve. It is private medicine—it is 'free enterprise medicine.' No other system ever devised by man has done so much for the great masses of the people."—San Francisco *News*, April 22, 1941.

* * *

Bacteriophage

A "Cure-All" Loses Prestige

Twenty-five years ago bacteriophage was the answer to the physician's prayer.

It was the "littlest germ," able to destroy larger germs, and it was going to cure every microbe-caused disease from anthrax to zygomycosis. Optimistic writers prophesied the complete eradication of typhoid fever, cholera, plague, blood poisoning, pneumonia.

That was twenty-five years ago.

Yesterday, Dr. Albert Krueger of the University of California, one of the world's most distinguished authorities on bacteriophage, said the "tiny bacteria slayer" might some day find use in the treatment of dysentery and cholera. But for the others—definitely no.

In a survey published by the American Medical Association, he and Dr. Jane Scribner showed most of the proposed uses of bacteriophage have been ruled out by careful research.

So small that it is invisible under an ordinary high-powered microscope, bacteriophage can probably be detected with the new electron-microscope.—M. M. S.—San Francisco *Chronicle*, June 1, 1941.

* * *

Council Hears Anderson Tell "Prepay" Plan

A proposal to establish an organization in San Jose, with members securing low-cost medical service under a prepayment plan was outlined to delegates of the Central Labor Council last Friday night by Dr. E. T. Anderson, local physician. Anderson is contacting key union labor organizations in an effort to secure support of the plan.

Tentative arrangements provide home and office medical service at a basic rate of 60 cents per month per member, with flat reduced rate for prescriptions. Several hundred members will be required to launch the Association, Doctor Anderson told the delegates. Asked about hospitalization and major surgical service in connection with such a plan, Anderson said that this type of extended service could be added when the preliminary form of organization had been launched successfully.

Doctor Anderson is a brother of Dewey Anderson, former Assemblyman of Santa Clara County and now a key member of the well-known Temporary National Economic Committee whose report on national social and economic conditions is one of the recent highlights of the Roosevelt Administration.—San Jose *Union Gazette*, May 30, 1941.

* * *

Health in Defense

Doctors, scientists, economists, and social welfare experts recently wrestled for three days in a conference at Washington, D. C., called by the President to consider the replacing of vitamins in food which had been "refined out" of it.

Chairman Paul V. McNutt of the nutrition conference declared that we have "failed to keep up a steady flow of dairy products, meats, fruits, and vegetables from the farm to the city tables," and it is time to do something about replacing in certain foods the nutriment that has been taken out of them.

For instance, Dr. James A. Crabtree, medical and nutritional expert, declares that, while bread is the backbone of most American diets, it is not a true staff of life.

"Flour refinement," he says, "has removed virtually all the vitamins and left only a bland-tasting starchy chaser for hamburgers and such."

Sugar, he asserts, has been reduced by refinement to a mere fire in which to burn proteins.

It will be the aim of the Government experts to treat sugar to "a vitamin injection" and so return it to its former position as a food as well as a fire.

It should be said that this "minus vitamin" condition is not the fault of anybody in particular, as the changing tastes of the American people have been accompanied or met by the processors of foods, and the missing vitamins can be and will be replaced without changing the taste and appearance of the foods to which they are added.

It is the hope that through women's organizations, Parent-Teacher Association circles, visiting nurses, family physicians, schools and colleges, clinics, radio, the lecture platform and the press, the people may be awakened to the necessity of coöperating in this health movement as a necessary concomitant to the national defense.

Everyone should coöperate, at least. A healthy citizen is the first line of any country's defense.—Editorial in San Francisco *Call-Bulletin*, June 25, 1941.

LETTERS†

Concerning Graduates of Foreign Medical Schools.

(COPY)

AMERICAN MEDICAL ASSOCIATION
BUREAU OF LEGAL MEDICINE AND LEGISLATION
J. W. HOLLOWAY, JR., ACTING DIRECTOR

Chicago, May 13, 1941.

Hon. John F. Shelley,
California Legislature,
State Capitol,
Sacramento, California.

My dear Senator Shelley:

During the absence of Doctor Fishbein, the editor of *The Journal of the American Medical Association*, your letter of May 2 has been referred to me for reply, concerning Assembly Bill 1475 to amend the Business and Professions Code for the purpose of imposing certain requirements on applicants for licenses to practice medicine in California who are graduates of foreign medical schools other than Canadian schools.

This bill requires such an applicant to submit documentary evidence, satisfactory to the Board of Medical Examiners, that (1) he has completed a resident course of professional instruction in an approved medical school or schools equivalent to that required for a physician and surgeon applicant; (2) he has had issued to him by such approved medical school, subsequent to the completion of the resident course, a medical diploma; (3) he has been admitted or licensed to practice medicine in the country wherein his professional instruction was obtained; (4) he has completed either the senior or fourth or final year in an approved medical school in the United States, or in lieu thereof documentary evidence that he has served at least one year in residence in a hospital located in the United States and approved by the board for training of interns; and (5) if the applicant is not a citizen of the United States, documentary evidence that the country in which he has been licensed to practice medicine will admit to practice therein citizens of the United States upon proof of prior admission to practice medicine in some state of the United States or "upon proof of matters similar to those required in this section for graduates of foreign medical schools."

In your letter you asked if the American Medical Association has taken any position either in approval or disapproval of this legislation. As directed toward the particular California bill, it has not. In 1936, however, the House of Delegates of the American Medical Association at its Kansas City meeting adopted the following resolution concerning graduates of medical schools of foreign countries:

WHEREAS, Through the initiation, support, and watchfulness of organized medicine, standards of medical education and medical practice have rapidly and continuously advanced; and

WHEREAS, There is a serious danger of this most satisfactory state of progress being undermined, and weakened by the registration to practice of graduates of medical schools of foreign countries; and

WHEREAS, There are at the present time more than 1,500 American students attending medical schools in foreign countries, many of them not having satisfactory credentials for admission to American medical schools; and

WHEREAS, There is in the files of the Council on Medical Education and Hospitals of the American Medical Association, and the Federation of State Medical Boards, evidence that many of the foreign medical schools do not consistently maintain and enforce the same high standards as are maintained in the medical schools of the United States; therefore, be it

Resolved, That each applicant for medical license in the United States, in order to adjust this inequality and to show a knowledge of acceptable medical practice, should be required before being admitted to a written examination before a properly constituted examining board to hold a license to practice in the country of his graduation and a certificate that he has completed a year's work as an intern in a hospital approved for internship training or should complete the fourth year in an American Class A medical college; and be it further

Resolved, That the House of Delegates of the American Medical Association approve the foregoing and that a copy be sent to the properly constituted officers of each examining board of the United States and to the Federation of State Medical Boards, with the request that they consider seriously urgent need for the adoption of such rules and/or legislation necessary to put the purposes of these resolutions into effect.

While this Association has not considered the pending California bill, the bill does obviously propose to put into effect legislatively the recommendations contained in the resolutions adopted by the House of Delegates in 1936.

Personally, I do not believe that this bill has been prompted by any desire to discriminate against the graduates of foreign medical schools. It represents an attempt to protect the people of the State against the ministrations of incompetent practitioners who have received their medical instruction under circumstances that make it impossible for the Board of Medical Examiners to appraise the quality of that instruction. With respect to medical schools conducted in the United States and in Canada, the Board of Medical Examiners has means by which it can determine if the instruction given in such schools is of a sufficiently high quality to assure that graduates are fundamentally trained in the healing art. With respect to medical schools conducted elsewhere, the Board has no such means and hence in order to preclude the licensure of those who are poorly equipped to treat the sick, legislation along the lines of the pending bill would seem to be necessary.

As you may know, during the last decade graduates of foreign medical schools have been emigrating to the United States in ever-increasing numbers. I take it that there is no disposition anywhere to throw any obstacles in the way of such of these graduates who are able to convince the licensing authorities that they are adequately qualified. It is for the purpose of enabling the Board of Medical Examiners in California to make sure that such of these graduates as desire to practice in California are competent that the pending bill under discussion has been sponsored.

535 North Dearborn Street.

Yours truly,
J. W. HOLLOWAY, JR.

† CALIFORNIA AND WESTERN MEDICINE does not hold itself responsible for views expressed in articles or letters when signed by the author.

Concerning a Point in Medical Defense.*

"While I am very glad that this case did not come to trial, I was particularly interested in the charge upon which it was based, *i. e.*, that I had not been frank in revealing to a patient the diagnosis of carcinoma and that my concealment of this fact from the patient had resulted in damages to his fortune, which he tried to collect from me.

"My attorneys told me that this particular point had not been tried in law before and have warned me of the necessity of having any relatives who instruct not to tell the patient that he has cancer, on their responsibility—to have such parties sign a release in which they accept the moral and financial responsibility of such a deception."

* Excerpt from a personal letter received from a member of the California Medical Association.

"A health commissioner is a John the Baptist, who recognizes that his only mission is to prepare the way for a greater than himself."—Anon.

MEDICAL JURISPRUDENCE†

By Hartley F. Peart, Esq.
San Francisco

Status of a Physician's Accounts Receivable Under Personal Property Tax Statutes

Under the personal property tax statutes of the State of California, a levy is made upon "solvent credits" of the taxpayer. The exact meaning of "solvent credits," is the subject of this article. Clearly, "credits" include bills payable by patients. However, what does the word "solvent" mean?

Section 2153 of the Revenue and Taxation Code provides:

> A tax of one-tenth of one per cent is hereby levied on the *actual value* of *solvent credits* and any interest thereon. . . .

Since most physicians have at all times a number of outstanding accounts payable to them, many of which may never be paid, it is necessary to ascertain if a deduction may be properly made from the total amount of credits of a sum equal to the bills which will in all probability not be collectible. For many years this has been a somewhat moot question.

The California tax laws were revised in 1939, and a Revenue and Taxation Code was enacted. This code was intended to contain substantially all of the laws of the state relating to taxation. The enactment of the code, however, did not clarify the issue with which we are concerned, and, if anything, rendered the answer more obscure. Section 113 provides:

> "Solvent credits" means all credits except notes, bonds, and debentures. . . .

Section 112 provides:

> "Credits" means solvent debts owing to the assessee, and any interest thereon unsecured by a mortgage, trust deed, contract, or other obligation where land is pledged as security.

Thus it can be seen that these sections reduce the term "solvent credits" to a meaning not different from the word "credits" itself as generally accepted. Article XIII, Section 1 of the State Constitution provides:

> All property in the State, except as otherwise in this constitution provided, not exempt under the laws of the United States, shall be taxed in proportion to its *value*, to be ascertained as provided by law or as hereinafter provided. The word "property," as used in this article and section, is hereby declared to include moneys, credits, bonds, stocks, dues, franchises, and all other matters and things, real, personal, and mixed, capable of private ownership; . . .

Section 110 provides:

> "Value," "full cash value," or "cash value" means the amount at which property would be taken in payment of a just debt from a solvent debtor.

A comparison of Article XIII, Section 1 of the constitution with Section 110 of the code reveals an uncertainty as to what shall constitute the "actual value" of accounts receivable. No case has been found in this state bearing upon this question, and it is generally accepted that there has been no judicial interpretation of the term "actual value" in its relation to accounts receivable.

The San Francisco Assessor's office has ruled that the "actual value" of accounts receivable shall be the proportion of the accounts which are *probably collectible*. This same position has no doubt been taken by other assessors, since it seems to be the only logical interpretation of the law. It is this same question of interpreting the laws in relation to the meaning of the word "value" which causes the various assessors a great deal of consternation when they attempt to assess various types of property, and all are hoping that the courts will soon settle the matter.

Since it is the practice for an individual to make his own estimate of the value of his personal property, it would seem reasonable for him to base his estimate upon that percentage which past years have shown will most probably be received from his accounts receivable.

† Editor's Note.—This department of California and Western Medicine, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

Reserve Commissions Offered to Senior Medical Students.—"All senior medical students graduating from fully accredited medical schools in the United States this spring will be afforded the opportunity of being appointed first lieutenants in the Medical Corps Reserve of the Army," *The Journal of the American Medical Association* reports in its *Medical Preparedness Section*. "The students who did not pursue formal instruction in the Reserve Officers' Training Corps will be eligible for appointment in the Medical Corps Reserve on a par with those students who did have the advantage of such instruction.

"These appointments will be made by the War Department on the recommendation of the dean of each approved medical school and on his certification that the applicant will be granted the degree of doctor of medicine on a specified date. At those schools which require a hospital internship for such degree, appointment will be made on certified evidence of the prospective successful completion of the prescribed four-year course of medical instruction. Commissions and letters of appointment will be delivered on graduation. The newly commissioned Medical Reserve officer should then present his letter of appointment to his local Selective Service board for reclassification.

"No Medical Reserve officer is considered eligible for extended active duty until he shall have completed at least one year of postgraduate hospital internship. Therefore, members of this year's graduating class who are appointed in the Medical Corps Reserve, either through medical units of the R. O. T. C. or under the aforementioned procedure, will not be available for active duty until July, 1942. Deferment of such duty beyond that time will depend on the current requirement for medical officers.

"In view of the anticipated annual demand for approximately four thousand Reserve medical officers to replace those who have completed twelve months training and service, it is doubtful that such deferments will be possible.

"The War Department approved appointment of senior medical students on February 18, and appropriate instructions were directed to the commanding general of each corps area. The deans of the several approved medical schools will receive complete instructions, together with appropriate application blanks, in the near future from the commanding general of the corps area in which the institution is located."

Eponym

Henle's Loop.—This anatomic structure was described by Friedrich Gustav Jacob Henle (1809-1885), professor of anatomy at Göttingen in his *Handbuch der systematischen Anatomie des Menschen* (Vol. II, p. 303; Braunschweig, 1862). A portion of the translation follows:

"The narrow canaliculae are always found in the interstices between the larger ones, running parallel with them and showing no tendency whatever to join them. Instead, they terminate at various levels, the lowest immediately under the surface of the papillae in the bridges between the larger canals, and are blind in the sense that two neighboring canaliculae join together in a sharp loop. Because of this course, I have given them the name of loop-shaped canaliculae."—R. W. B., in *The New England Journal of Medicine*.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XIV, No. 7, July, 1916

From Some Editorial Notes:

Malpractice Defense.—As all our members know, the State Medical Society has been defending its members in suits brought for damages for alleged malpractice, subject to certain rules and regulations, since July 1, 1909. [This statement as of July, 1916.] Before referring to the recently approved extension of the work, it may be well to set forth here briefly the rules and regulations covering the operation of the present work.

1. The physician defendant must have been a member in good standing, dues fully paid, at the time of the alleged malpractice, and also at the time when the suit is filed against him.

2. Any member sued, or threatened with suit, must, within forty-eight hours, notify the Secretary of the State Society, forwarding any communications, summons and complaint, or correct copy thereof, with a full statement of the case.

3. If such member is also insured in an indemnity company, he must elect whether to have the company of this Society take charge of his defense; and he must be advised by the Secretary of the Society that if he does not immediately notify the insurance company, he violates his contract with the company and practically cancels his policy, in which event, if a judgment went against him, the company would not be compelled to pay it.

4. An action in the nature of a cross-complaint, brought against a member who has sued a patient to collect an account due within one year from the termination of the services, will not be defended by the Society, unless such member has, before suing his patient, applied to the Council of the State Society for, and received, permission to bring such suit.

5. The Society will not defend a member in an action originating in the treatment of some injury where an x-ray plate would have been of benefit and advantage in making a correct diagnosis, or in correctly treating the patient, and was not so taken, unless the member so sued can furnish the Council with a full and satisfactory explanation of why an x-ray plate was not made and kept by him.

All of these rules are comparatively simple and all of them have been approved by the House of Delegates of the State Society.

In any case where a member is being defended by an insurance company, and in which we feel that it will be desirable to have our own attorneys participate in such defense, we so participate. The Society makes sure that everything which should be done for the protection of its members has been and is being done.

* * *

Paying Judgments.—When the medical defense plan was adopted, the Society decided not to include the settlement of judgments which might go against members. As a result of this decision, quite a good many members, who felt that they might at some time or other have a judgment against them, have carried indemnity insurance with one or more insurance companies. Such a policy with an insurance company costs from $15 to $30 a year.

(Continued in Front Advertising Section, Page 7)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M. D.
Secretary-Treasurer

News

"The State Senate today defeated, 28 to 7, a bill by Senator John Harold Swan of Sacramento, proposing to set up a separate board for examination and licensing of naturopaths. Opponents charged that the bill was favored by chiropractors, among others, as a method of gaining broader authority for that profession, and contended such a move should be made in the form of amendments to the Chiropractic Act." (San Francisco *Examiner*, May 16, 1941.)

"Governor Olson today vetoed a bill by Assemblyman Roger Pfaff which would have provided that an alien physician or surgeon applying for a license to practice medicine in California be compelled to submit evidence showing that the nation which issued his license admits United States licensed physicians to practice. The measure, which was fought in the Assembly, contained a provision that its restrictions would not apply to persons registered as interns as of March 31, 1941. Declaring that few foreign nations admit United States licensed physicians to practice, the Governor characterized a ban on the services of refugee physicians as a 'needless waste of human knowledge', and said he understood there was a dearth of medical men in national defense programs." (San Francisco *News*, May 10, 1941.)

"The California Physicians' Service today extended its low-cost medical and hospital service by offering a new plan to employ groups throughout the state, the California Medical Association announced. The plan, available to groups of fifty or more employees, offers hospitalization for any illness, operation or accident, and also the doctor's services for all operations in or out of the hospital. The cost to the wage-earner for participation in the plan is $1.20 a month. For an additional $1.35 a month, he may secure full hospital services for his wife and children. The plan was expected to appeal to many low-income families." (San Francisco *News*, June 4, 1941.)

"A proposal to establish an organization in San Jose with members securing low-cost medical service under a prepayment plan was outlined to delegates of the Central Labor Council last Friday night by Dr. E. T. Anderson, local physician. Anderson is contacting key union labor organizations in an effort to secure support of the plan. . . . Doctor Anderson is a brother of Dewey Anderson, former Assemblyman of Santa Clara County and now a key member of the well-known Temporary National Economic Committee, whose report on national social and economic conditions is one of the recent highlights of the Roosevelt administration." (San Jose *Union-Gazette*, May 30, 1941.)

"Dr. Nathan S. Housman today won a thirty-day stay in execution of a superior court sentence of one to fourteen years in San Quentin for preparing and offering false evidence. The stay was granted by Judge John T. Nourse of the District Court of Appeal, pending the outcome of an appeal of the case to the United States Supreme Court." (San Francisco *Call-Bulletin*, June 2, 1941.)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

GROWING COMFORTABLY ON S-M-A

Pretty soft life! Nothing to do but eat, sleep and grow in comfort on S-M-A. It's a happy, healthy first year for the S-M-A fed infant because S-M-A promotes normal, comfortable growth.

In addition to fat, carbohydrate and protein of physiological characteristics and proportions, each feeding of S-M-A provides standardized quantities of iron and vitamin A, B_1 and D. Only vitamin C need be supplemented.

Prescribing S-M-A makes life more pleasant for the doctor and the mother, too, because excellent results are obtained simply and quickly.

" " "

Normal infants relish S-M-A . . . digest it easily and thrive on it.

" " "

FOR TREATMENT OF FOOD ALLERGY DUE TO SENSITIVITY TO MILK PROTEIN

A Special Product

HYPO-ALLERGIC MILK

Hypo-Allergic Milk is thermally processed cows' whole milk in which the sensitizing properties of the protein are altered without affecting the caloric value of the protein or whole milk itself.

It may be used the same as cows' whole milk, as a beverage, or in infant feeding formulae where a sensitivity to milk protein is known to exist.

Complete information upon request.

*S-M-A, a trade mark of S.M.A. Corporation, for its brand of food especially prepared for infant feeding—derived from tuberculin-tested cow's milk, the fat of which is replaced by animal and vegetable fats, including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

S.M.A. CORPORATION • 8100 McCORMICK BOULEVARD • CHICAGO, ILLINOIS

TWENTY-FIVE YEARS AGO

(Continued from Front Advertising Section, Page 26)

Social Insurance.—Herewith a brief report of a meeting of the Committee on Social Insurance of the Medical Society of the State of California, held in San Francisco May 20. Elsewhere in the *Journal* there will be found some additional matter relating to this most important subject, and a copy of the circular of information which was sent to all county society secretaries. A great deal of interest and enthusiasm on this subject seems to have been raised, and it is a most fortunate thing that such is the case. The statement of Doctor Lambert, chairman of a similar committee of the American Medical Association, to the effect that, in his judgment, this is the most momentous and important problem facing the medical profession of the United States, is undoubtedly true, and its truth is evidenced by a committee of the American Medical Association with an appropriation sufficient to permit it to do whatever is needed in the way of keeping the medical profession in touch with what is going on.

* * *

County Society Notices.—To all County Society Secretaries: Dear Doctor: Enclosed is some matter from the Committee on Health Insurance which is of the greatest importance to every physician. You should read it carefully and present the gist of it to your society, and at the same time urge them to follow carefully all that is published on this subject in the *State Journal* from month to month.

The State Society, at the Fresno meeting, authorized the Council to prepare a plan whereby such members as wished to might contribute to a fund for the purpose of paying

(Continued on Page 32)

DEXTRI-MALTOSE

True Economy

IT is interesting to note that a fair average of the length of time an infant receives Dextri-Maltose is five months: That these five months are the most critical of the baby's life: That the difference in cost to the mother between Dextri-Maltose and common sugars is about $7 for this entire period—a few cents a day: That, in the end, it costs the mother less to employ regular medical attendance for her baby than to attempt to do her own feeding, which in numerous cases leads to a seriously sick baby eventually requiring the most costly medical attendance.

"The Measure of Economy
Is Value, Not Price."

MEAD JOHNSON & COMPANY
Evansville, Indiana, U.S.A.

TWENTY-FIVE YEARS AGO

(Continued from Page 30)

judgments and the like; in other words, covering such members as fully as any insurance company could do. The full details of this plan and arrangement will appear in the July number of the *Journal*. Please urge your members to look for this and study it carefully when it comes out. Cordially yours, Philip Mills Jones, Secretary.

To County Societies:

Your attention is herewith called to the following facts:

1. The last legislature authorized, and the Governor has appointed, a Commission to Investigate and Report upon Systems of Social Insurance.

2. This Commission has undertaken an intensive study of sickness insurance, this seeming more practicable for the present than the study of insurance against old age, invalidity, unemployment, and death. . . .

6. . . . The State Society's Committee feels that, in the study of sickness insurance, it is important that the entire profession take an active part. The legislature will have met before this Committee will have been able to report to the Society at large.

7. It, therefore, and hereby requests the appointment of a Social Insurance Committee in every county medical society.

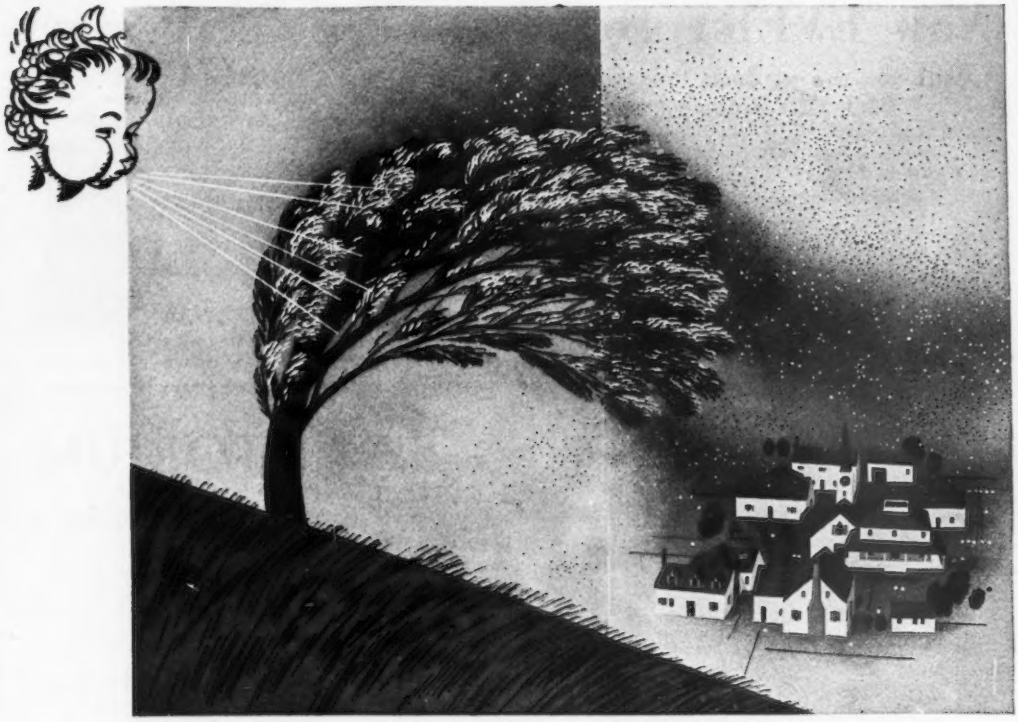
8. The State Committee will keep in touch with all county committees, and endeavor to place all available information at their disposal.

9. The work is important. Please appoint your committee immediately and report at once as to its personnel to the Secretary of the State Society, in the enclosed envelope. Yours truly, Rene Bine, chairman, Committee on Health Insurance. Address: 350 Post Street, San Francisco.

From an Original Article on "Second Thoughts About Salvarsan Therapy," by William E. Stevens, M. D., San Francisco.—As the supply of salvarsan and neosalvarsan has been temporarily discontinued, it seems appropriate at this time to consider some of the contraindications for their use and common errors in the technique of the various methods of administration. These preparations, of great value in the treatment of syphilis, contain large amounts of arsenic and are capable of producing some very disastrous and even fatal results when incorrectly employed. This important fact seems to have been lost sight of, for salvarsan has been carelessly, even recklessly, used by many reputable practitioners. . . .

From an Original Article on "Chronic Appendicitis Complicating Pulmonary Tuberculosis," by Jno. C. King, M. D., Banning.—All systematic writers upon pulmonary tuberculosis emphasize the frequency of gastric symptoms. Many claim that indigestion, in its various forms, is a necessary concomitant of the disease. The digestive organs are of utmost importance in all chronic diseases because they represent nutrition. In tubercular patients, nutrition is almost invariably faulty. They are poor eaters, whether through poverty or habit. Forced feeding and other similar methods have fallen into partial disuse because of their

(Continued on Page 34)



Clinical advantages of 'Propadrine' Hydrochloride in symptomatic control of hay fever and asthma

'Propadrine' Hydrochloride (phenylpropanol-amine hydrochloride) is a primary amine with similar pharmacological action and the same field of clinical application as ephedrine. The clinical characteristics of 'Propadrine' Hydrochloride in the symptomatic control of hay fever and asthma are manifested by:

1. **The comparative absence of side-effects such as insomnia, nervousness, excitation, and enuresis.**
2. **Simultaneous administration of sedatives is usually obviated.**
3. **May be administered in therapeutic dosage over long periods of time.**

'Propadrine' Hydrochloride, because of its bronchodilator action, affords relief to many asthmatic patients in ⅜-grain doses every three hours. This may be increased to ¾ grain every three hours in adults and in children over eight years of age without untoward effect.

Solution 'Propadrine' Hydrochloride is also of value in allergic rhinitis with associated edema of the nasal mucous membrane.

How Supplied

CAPSULES: ⅜ grain—bottles of 25, 100 and 500; ¾ grain—bottles of 25, 100 and 500.

ELIXIR: Each fluidounce contains 2 grs. 'Propadrine' Hydrochloride. In pints and gallons.

SOLUTION (Aqueous): 1% (isotonic)—1-ounce and pint bottles; 3%—1-ounce and pint bottles.

NASAL JELLY: in ½-ounce tubes containing 0.66% 'Propadrine' Hydrochloride.

'PROPADRINE' HYDROCHLORIDE

Sharp & Dohme

TWENTY-FIVE YEARS AGO

(Continued from Page 32)

supposed injurious effect upon the digestive organs; and yet, from the standpoint of nutrition, they represent an important principle. . . .

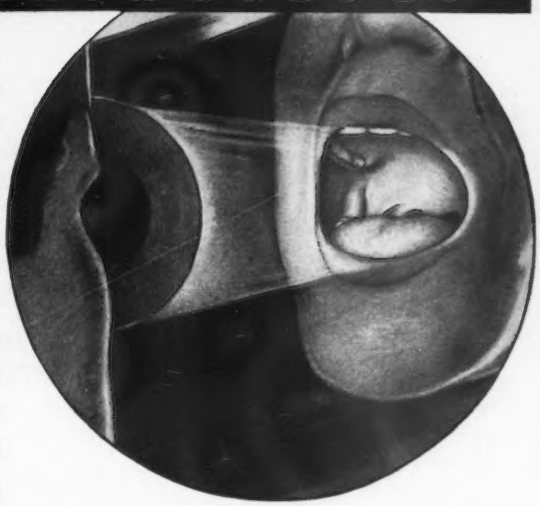
From an Original Article on "A Statistical Study of Rabies in California," by J. C. Geiger, M. D., Assistant Director, Bureau of Communicable Disease of the California State Board of Health, Berkeley.—Since 1909, and until recently, rabies has been epidemic in California. Despite the dissemination of knowledge in regard to the control of the disease, rabies among animals in California steadily increased. The height of the epidemic has been reached and passed, and rabies may be considered under control except in Modoc and Lassen counties. This is partly due to the peculiar tendency of an epidemic of rabies to spend itself, the measures instituted for control, and the fact that the disease has become endemic in the more populous communities.

The advent of the disease in coyotes in Modoc and Lassen counties, which was accomplished through infection traveling from Oregon and Nevada, was made the basis of a remarkable campaign against these animals by the California State Board of Health. The financial loss in livestock alone in Modoc and Lassen counties from rabies places this disease in the forefront as the enemy of cattle and sheep men. Therefore, the prompt eradication of rabies is a necessity, both in city and rural communities, because of the serious element of human danger on the one hand, as shown by the large number of deaths from rabies in

(Continued on Page 36)

Pontocaine Hydrochloride IN

RHINOLARYNGOLOGY



FOR topical anesthetization of the mucous membranes of the nose and nasopharynx, a 2 per cent concentration of Pontocaine hydrochloride need not be exceeded. In many cases, a solution of lower strength (0.5 or 1 per cent) is adequate.

The procedures which can be carried out under surface anesthesia include cauterization or removal of turbinates, puncture and irrigation of the sinuses, removal of polypi, and painful examinations.

For endolaryngeal procedures, such as removal of polypi, puncture of cysts, cauterization of laryngeal tubercles, and biopsy, Pontocaine hydrochloride is applied with a dropper or spray in the same manner as cocaine.

HOW SUPPLIED: *For surface anesthesia in rhinolaryngology,* Pontocaine hydrochloride 2 per cent solution, in bottles of 1 oz. and 4 oz.

Also Useful in Ophthalmology

For surface anesthesia in ophthalmology, Pontocaine hydrochloride 0.5 per cent solution, in bottles of ½ oz. and 2 oz.

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

Write for booklet giving essential details regarding chemistry, action, indications and manner of use.

• PONTOCAINE

Trademark Reg. U. S. Pat. Off. & Canada

Brand of TETRACAINE

(Para-butyl-aminobenzoyl-dimethyl-amino-ethanol)

HYDROCHLORIDE

WINTHROP CHEMICAL COMPANY, INC.

Pharmaceuticals of merit for the physician

NEW YORK, N. Y.—WINDSOR, ONT.

WINTHROP

Advertisers in your OFFICIAL JOURNAL *will appreciate requests for literature*

TWENTY-FIVE YEARS AGO

(Continued from Page 34)

human beings in California, and from an economic standpoint on the other, as shown by the experience of Modoc and Lassen counties. . . .

From an Original Article on "Danger of Baths in Patients Suffering from Arteriosclerosis," by William Watter Kerr, M. D., San Francisco.—As the time of year is at hand when people are arranging to leave town for the summer months, the following cases may be of interest to those physicians who are liable to be consulted by their patients regarding the propriety of visiting one or other of the many springs which abound in California. It not infrequently happens that too little attention is given to the fitness of individual cases to hydrotherapy, and consequently harm is done to the patient and also to the reputation of the particular spa which he chanced to select, so that others who would receive benefit are deterred by their friend's misfortune from availing themselves of the treatment. The popular idea that the surroundings at the various resorts are responsible for all improvement, and that although the baths may fail to relieve, yet they never will do any harm, is extremely unfortunate. At least two things should be impressed upon those seeking advice: (1) That hydrotherapy is not adapted to all cases, and (2) that the temperature and method of administration are of much greater importance than any salts contained in the water. . . .

(Continued on Page 38)

INDIVIDUALIZED FORMULAS FOR THE NEWBORN

NORMAL INFANTS

Whole milk .....10 ozs.
Water, boiled .....10 ozs.
Karo syrup ..... 2 tbs.

Evaporated milk ..... 6 ozs.
Water, boiled .....12 ozs.
Karo syrup ..... 2 tbs.

Powdered milk ..... 5 tbs.
Water, boiled .....20 ozs.
Karo syrup ..... 2 tbs.

ALLERGIC INFANTS

Evaporated goat's milk.. 6 ozs.
Water, boiled .....12 ozs.
Karo syrup ..... 2 tbs.

Hypoallergic milk .....10 ozs.
Water, boiled .....10 ozs.
Karo syrup ..... 2 tbs.

Sobee ..... 8 tbs.
Water, boiled .....18 ozs.
Karo syrup ..... 2 tbs.

NEUROPATHIC INFANTS

Evaporated milk ..... 7 ozs.
Water, boiled .....13 ozs.
Barley flour ..... 3 tbs.
Karo syrup ..... 1 tbs.
(cooked ten minutes until thick)

Whole milk .....12 ozs.
Water, boiled ..... 6 ozs.
25% Lactic acid..... 2 tsp.
Karo syrup ..... 2 tbs.

2% Lactic-acid milk ....18 ozs.
Karo syrup ..... 2 tbs.

"Infants Thrive on Karo Formulas"

"Newborns tolerate a simple formula consisting of 10 ounces of boiled fresh cow's milk, 8 ounces of sterile water and 1 ounce of mixed sugar. Added carbohydrate in the form of corn syrup is usually better tolerated than the simple sugars, lactose or sucrose. At first, about one ounce of the formula will be taken at a time although the infant is allowed all he will take of the three ounces and the remainder discarded. The allergic newborn may be given evaporated cow's-milk or goat's-milk formulas; the hypertonic newborn thick feeding; the hypotonic newborn, evaporated or lactic-acid milk formulas."

KUGELMASS: "*Newer Nutrition in Pediatric Practice.*"

THE CHEMICAL COMPOSITION OF KARO IN GLASS AND IN TINS IS IDENTICAL

Dextrins	37.4%	1 oz. volume	40 grams 120 cals.
Maltose	18%		
Dextrose	12%	1 oz. wt.	28 grams 90 cals.
Sucrose	4%		
Invert Sugar	3%		
Minerals	0.6%	1 teaspoon	20 cals.
Moisture	25%	1 tablespoon	60 cals.

(Karo—Blue Label)

CORN PRODUCTS SALES COMPANY

17 Battery Place, New York City

TWENTY-FIVE YEARS AGO

(Continued from Page 36)

Society Reports:

Placer County.—The Placer County Medical Society held its regular meeting in Auburn, Saturday evening, March 25. Through the courtesy of the Trustees of the Placer Union High School, the Assembly Hall of that building was used as a place of meeting. . . .

. . . Dr. James G. Cumming, Director of the Bureau of Communicable Diseases of the State Board of Health, read a paper, entitled "The Protection of Public Water Supplies, with Special Reference to Dysentery and Typhoid Fever." Professor W. B. Hearms of the University of California, who has charge of the special work to be done by the State Board of Health in its campaign against malaria, gave an address, illustrated by lantern slides, on "Practical Aspects of Malaria Control."

These papers were discussed by members of the Society and visitors.

It is expected that the next meeting will be held in Roseville.

Robert A. Peers, M. D., Secretary.

Social Insurance.—The question of sickness insurance in this state [California] opens up such a large field for study as to make it imperative for us all to coöperate, in so far as possible, in an intensive investigation of the problems involved. It is very important that your committee, representing, as it does, the medical profession of the state, should post itself as to all phases of the study, and not concern itself alone with the attitude of the profession toward any scheme for sickness insurance.

It is with this view in mind that I shall attempt to furnish your committee, from time to time, with what information we are able to gather here in San Francisco. A few months ago a group of us, interested in social insurance, at the suggestion of a member of the Social Insurance Commission of the State of California, decided to hold weekly evening meetings so that we could take up and discuss these matters.

The Commonwealth Club of California has, likewise, organized a study committee. It meets every Friday afternoon from 4 to 6 p. m. On it we find employers, employees, staunch representatives of labor, insurance men, statisticians, physicians. They have mapped out a rather ambitious program for study. . . .

New Sections.—Acting upon the request of the House of Delegates, the Council has created a section on Obstetrics and Gynecology, with Dr. E. N. Ewer as chairman, to serve until the annual meeting of 1917, and a section on Neurology and Psychiatry, with Dr. A. W. Hoisholt, chairman, and Dr. J. Ross Moore, secretary. Doctor Ewer will appoint the temporary secretary of the Section on Obstetrics upon his return from the East.

Medicine and Dentistry.—First University Dental School in New York for Columbia. Realizing the importance of the teeth and mouth infections to systemic disease, the

(Continued on Page 40)

Camp Departments are located in good stores from coast to coast. Here, Camp trained fitters accurately fill your prescriptions for Camp Scientific Supports from large assortments of available stock.

THE SUPPORT BEHIND YOUR PRESCRIPTIONS

In good stores, in or near your city, a Camp Department stands ready to carefully interpret your prescriptions for patients who need Scientific Support. Perhaps you have seen a typical Camp Departmental Unit on exhibition at Medical Conventions and already know how completely it is stocked and how thoroughly it is equipped to follow your instructions.

Each Camp Department is staffed by fitters trained in one of the comprehensive S. H. Camp & Company fitting courses held periodically in leading cities. Conducted by the Camp Educational Staff, under medical supervision, these courses give corsetieres a thorough schooling which enables them to fill your orders scientifically and correctly; to properly fit garments for maternity, postoperative and other specialized needs, as well as for general wear.

When you direct your patients to a Camp Dealer, you can do so with assurance that they will be carefully fitted by experts who take pride in their own profession and its faithful service to yours.

CAMP TRADE MARK Supports

S. H. CAMP & COMPANY, JACKSON, MICHIGAN

Offices in New York; Chicago; Windsor, Ontario; London, England. World's largest manufacturers of Scientific Supports

Advertisers in your OFFICIAL JOURNAL *will appreciate requests for literature*

TWENTY-FIVE YEARS AGO

(Continued from Page 38)

Faculty of the College of Physicians and Surgeons have unanimously voted in favor of the establishment of a dental department, to be connected with the medical school. A committee of prominent dentists of the city have presented plans to the Medical Faculty which have been approved.

The school of dentistry will be closely associated with the medical school, and the admission requirements will be the same as the medical. The course will be four years, the first two years the same as those in medicine, thus giving the dental student a thorough knowledge of the fundamental sciences necessary to the practice of a specialty of medicine. At the end of the second year the dental student will give all his time to the study of dental subjects, namely, operative dentistry, prosthetic dentistry, oral surgery and oral pathology, orthodontia, etc., and the more technical part of the work required for the well-trained dental surgeon. This new school will be the first university dental school in New York City and the second in the state. It will give the first four-year course of dentistry ever given in the Empire State.

Two Cases of Skin Rash from Dextrin Used as Adhesive on Tax Stamps.—Two cases of a skin rash due to the dextrin used as an adhesive on tax stamps are reported by Doctors J. D. Walters and E. C. Stern, Cleveland, in *The Journal of the American Medical Association.*

The two patients affixed the stamps by hand to packaged goods. They both recovered quickly when long-sleeved garments were used at work, when the containers of the water for moistening the stamps were washed frequently, and when the hands and cloths used to wipe away excess moisture from the stamped goods were rinsed frequently in running water.

BOOK REVIEWS

Principles of Psychiatric Nursing. By Madelene Elliott Ingram, R. N., with a foreword by Ross McC. Chapman, M. D. W. B. Saunders Company, 1940.

I very much like this inclusive and practical book on psychiatric nursing, and recommend it as a textbook for use by teachers and student nurses, whether or not they propose to specialize in psychiatric nursing. The following topics, for example, are self-descriptive, but I may add that they are well-formulated and interesting: A Survey of the Nurse as an Individual. Factors Essential in Establishing Satisfactory Rapport. Habit Formation and the Personal Hygiene of the Patient. Safeguarding the Patient's Personal Property. Feeding Problems. Suicide. Escape. Hazards. Accident. Admisson. Transfer. Discharge. Management of Active Patients. Group Management. Occupation and Industry as Therapy. Hydrotherapy. Behavior. Organic Reaction Types. Functional Reaction Types. Miniature Case Studies. Specific Psychiatric Treatments, e. g., shock therapy. It is satisfying to have good advice on Traveling With Patients. I think the student nurse, (and, for that matter, the medical student), should gain useful concepts of modern psychiatry from the study of this book of 428 pp. At the end of each chapter appear a Summary Outline, Questions, and a fairly comprehensive Bibliography. G. M.

Manson's Tropical Diseases. A Manual of the Diseases of Warm Climates. Edited by Philip H. Manson-Bahr, C. M. G., D. S. O., M. A., M. D., D. T. M., and H. Cantab, F. R. C. P., Lond., Senior Physician to the Hospital for Tropical Diseases, London, the Albert Dock Hospital and the Tilbury Hospital; Consulting Physician to the Colonial Office and Crown Agents for the Colonies; Consultant in Tropical Diseases to the Royal Air Force, etc. Eleventh Edition, Revised. Cloth, Pp. 1,083,

(Continued on Page 9)

Alphabetical List of ADVERTISERS

Coöperate With Your Advertisers

CALIFORNIA AND WESTERN MEDICINE, the official publication of your Association, is made possible in part by reason of the coöperation of business firms and institutions who use advertising space. Their purpose is to direct attention to their products and services to present and future patrons.

Members and readers are urged to give preference to and to patronize these advertisers. When ordering goods, mention CALIFORNIA AND WESTERN MEDICINE.

This coöperation will please the advertiser, increase advertising income and enable your Association to increase the value of this JOURNAL to members and readers.

BOOK REVIEWS

(Continued from Page 7)

with 18 color plates, 15 half-tone plates, 364 figures in the text, 6 maps, and 28 charts. A William Wood Book. Baltimore: The Williams & Wilkins Company, 1940.

It is indeed a pleasure to review the latest edition of Manson-Bahr's "Tropical Diseases." For one who studied the older ninth edition under Dr. Manson-Bahr in 1931-32, and again in 1935, it is interesting to see the newer edition, and to refresh one's memory on some of the tropical diseases that I so frequently encountered during my six years of practice in Nigeria, British West Africa.

The book opens with two chapters on life and conditions in the tropics, and discusses the qualifications and preparations necessary for anyone who intends to practice in those regions. However, it is not my intention to review the book on the basis of its usefulness in the tropics, but rather to emphasize its applicability to both general practice and surgery in the more temperate climate of California. After the first two chapters, the book is divided into ten main sections and an appendix. The first section—dealing with *Fevers*—comprises the main part of the book, and is further divided into six sections according to the different causes of fevers: Blood Protozoa; Blood Spirochetes and Spirilla; Bartonella and Rickettsia bodies; Bacteria, Viruses; and Atmospheric Causes. Then follow sections on Vitamin Deficiency Diseases; Abdominal Diseases; Infective Granulomatous Diseases; Diseases of the Central Nervous System; Tropical Venereal Diseases; Tropical Skin Diseases; Local Diseases; Animal Parasites; and Diseases due to poisons, etc. The appendix deals with medical zoölogy and laboratory methods. Throughout, the book is copiously illustrated with color plates, half-tone plates and figures in the text. There are also a number of charts and graphs, and some very interesting maps, showing the distribution of the different diseases.

There are a number of tropical diseases that we see more or less frequently in the United States, and particularly in California, first port of call from the Orient and many of the tropical countries. Consequently, it behooves the practicing physician to be somewhat familiar with these diseases. I know whereof I speak, because, after being in

(Continued on Next Page)

BOOK REVIEWS

(Continued from Preceding Page)

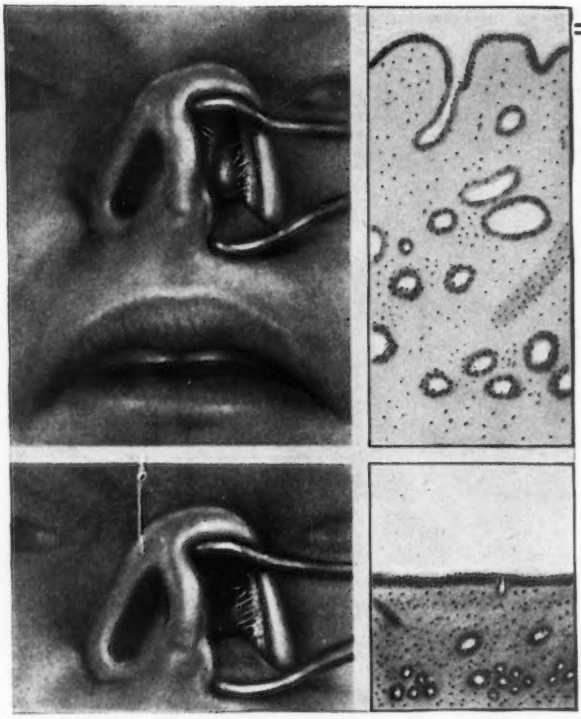
Nigeria for three years and practicing, like a man in a fog, with tropical diseases about which I had no practical knowledge, it was a revelation, on my first leave, to study at the London School of Tropical Medicine and Hygiene. I discovered, to my embarrassment, that I had operated on a man with a case of granuloma of the bladder, caused by Bilharzia or Schistosomiasis, when medical treatment with Tartar Emetic would have cured him. I had already found the Bilharzia ova in his urine, and had treated him with Tartar Emetic before surgery. After the operation, at which I had diagnosed cancer of the bladder, medical treatment was stopped. That, of course, occurred in the tropics, but during the five years that I have been practicing in San Diego—a Navy port and border city—I have seen one or more cases of the following diseases: Lymphogranuloma Inguinale; Amoebic Dysentery, both acute and chronic; Malaria; Undulant Fever; Leprosy; and both types of Bacillary Dysentery. All types of vitamin-deficiency diseases, such as Pellagra, Scurvy, and Beriberi are seen here, as are the tropical ringworm infections or yeast infections of the axilla, groin, vagina and penis. This is just a partial list, as it is only those that I remember off-hand. Then there are the other tropical diseases that we know occur here, although they have not come under my care. Some of these are: Rat-bite fever; the Mexican variety of Typhus; Mycetoma; and the plague in California rodents that is sometimes transmitted to humans.

All these, and probably others, are found here, but we do not see them often enough to remember their pathology, symptoms and treatment, and so must laboriously gather the required information from various sources, and trust that they are reliable. Such material is to be found in the eleventh edition which we now have in the San Diego Medical Library. It will pay us to read it more often.

The advantage of this work, edited by Doctor Manson-Bahr, is that the data are authentic from both a theoretical and practical standpoint. The author-editor has looked up the literature to get the facts straight, and he has practiced in several widely separated parts of the tropics. He was on some small islands in the southern Pacific for some time before World War I, and during the war he was with

(Continued on Page 14)

PATHOLOGY OF THE UPPER RESPIRATORY TRACT



(*Above*) Allergic Rhinitis
(*Below*) Five Minutes after application of Neo-Synephrin Hydrochloride

ALLERGIC RHINITIS

IN ALLERGIC RHINITIS, relief from nasal congestion is the thing the patient urgently demands—the single criterion by which he evaluates treatment.

To bring such relief

NEO-SYNEPHRIN HYDROCHLORIDE

(laevo-alpha-hydroxy-beta-methyl-amino-3 hydroxy ethylbenzene hydrochloride)

shrinks the nasal mucous membrane swiftly—with more prolonged effect than ephedrine, and with lower toxicity in therapeutic dosage.

There is no "sting" on application, and unpleasant side reactions are a rarity.

DOSAGE FORMS

Emulsion ¼% (1-oz. bottle with dropper)

Solution ¼% and 1% in saline solution (1-oz. bottles)
¼% in Ringer's Solution with Aromatics (1-oz. bottles)

Jelly ½% (in collapsible tubes with nasal applicator)

EMULSION

SOLUTION

JELLY

FREDERICK STEARNS & COMPANY, Detroit, Michigan

New York Kansas City San Francisco Windsor, Ontario Sydney, Australia

Advertisers in your OFFICIAL JOURNAL *will appreciate requests for literature*

CLASSIFIED ADVERTISEMENTS

Rates for these insertions are $4 for fifty words or less; additional words 5 cents each.

Copy for classified advertisements should be received not later than the fifteenth of the month preceding issue.

COACHING FOR STATE MEDICAL BOARDS—Arthur H. White, M. D., Suite 911, Flood Building, San Francisco.

DERMATOLOGIST SEEKS LOCATION, TEACHING position, association or other opportunity. Will consider ethical group connection, public health position, or making investment; possesses excellent training, dermatology, syphilology, allergy and psychoneurosis work; American born Gentile; licensed in California, served previous war. Box 3050, California and Western Medicine.

WANTED: ASSISTANT PHYSICIAN IN OFFICE DOING industrial work at Cleveland, Ohio. Box 3040, California and Western Medicine.

FOR SALE AT SACRIFICE—A PAYING HYDROTHERA-peutic resort. Radio-active hot bath, six mineral drinking waters. Used for treatment of arthritis, poliomyelitis, and circulatory disorders, under direction of family physician. One of the oldest institutions in Lake County. J. P. Francisco, Middletown, Lake County, California.

WANTED—LICENSED M. D. TO TAKE OVER NEW suite offices, six rooms, newly furnished and equipped; fastest growing section Los Angeles; proportion 1—1,000 population. Rent $50.00. Invest $250, terms. Exceptional opportunity. General, or Gyn. or Ob. Health reasons. Address Box 3070, California and Western Medicine, or phone GR 5810, L. A.

FOR SALE REASONABLE—LATEST MODEL F-3 PORT-able Shockproof General Electric X-Ray Unit, complete with carrying case and accessories. Has been used very little, and in excellent condition. Cassettes included, also table with tube stand for convenience in office use, if desired. Address Box 3060, California and Western Medicine.

Food Poisoning.—Why are more food-poisoning cases reported by laymen than by physicians?

Why are the more reputable restaurants, hotel dining rooms, and markets more often alleged to have served or sold the suspected food than the so-called beanery or the roadside stand?

Why does the victim often become violently ill and "almost die" immediately upon discovering a fly, spider, or match folder in the food or drink he is ingesting, and consult his attorney instead of his physician regarding his gastro-enteritis?

Although the incubation period for different forms of food infection varies a great deal, depending on the causative organism, why is it the victim is prone to incriminate one particular food purchased from one particular establishment?

Food poisoning (due to living bacteria or bacterial toxins) is reportable in California, and is listed as such on the Communicable Disease Report cards furnished to all physicians.

The Health Departments cannot examine food samples for infective organisms unless the original suspected food is available for analysis. Vomitus and early stool specimens are also of value. In any outbreak early reporting expedites matters in assisting the health authorities to obtain specimens and to remove an infectious food from the market.

NO food (except breast milk) is more highly regarded than Similac for feeding the very young, small twins, prematures, or infants who have suffered a digestive upset. Similac is satisfactory in these special cases simply because it *resembles breast milk so closely*, and normal babies thrive on it for the same reason. This similarity to breast milk is definitely desirable—*from birth until weaning.*

A powdered, modified milk product especially prepared for infant feeding, made from tuberculin tested cow's milk (casein modified) from which part of the butter fat is removed and to which has been added lactose, vegetable oils and cod liver oil concentrate.

ACCEPTED AMERICAL MEDICAL ASSN

***One* level measure of the Similac powder added to *two* ounces of water makes 2 fluid ounces of Similac. The caloric value of the mixture is approximately 20 calories per fluid ounce.**

★ SIMILAC } SIMILAR TO BREAST MILK ★

M&R DIETETIC LABORATORIES, INC. • COLUMBUS, OHIO

Advertisers in your OFFICIAL JOURNAL *will appreciate requests for literature*

BOOK REVIEWS

(Continued from Page 10)

Allenby in Palestine and Mesopotamia. Since then, while teaching in London and during his travels, he has worked and visited in other tropical regions. In addition, he is in constant touch with men from all over the tropical medical world. Less than two years ago he visited his friend, Doctor Abbott, here in San Diego, and those of us who heard him enjoyed the experience immeasurably, and realized that they were listening to a real "Professor."

J. C. A., D. T. M. & H., San Diego.

BOOKS RECEIVED

Effective Living. By C. E. Turner, A. M., Sc. D., Dr. P. H. Professor of Biology and Public Health, Massachusetts Institute of Technology; Formerly Associate Professor of Hygiene, Tufts Medical and Dental Schools; Formerly Director of Health Education Studies, Malden, Massachusetts; Chairman, Health Section, World Federation of Education Associations, and Elizabeth McHose, B. S., M. A., Director of Physical Education for Girls and Chairman of the Health Council, Senior High School, Reading, Pennsylvania. Cloth. Price $1.90. Pp. 432, with 164 illustrations. St. Louis: The C. V. Mosby Company, 1941.

Orbital Tumors. Results Following the Transcranial Operative Attack. By Walter E. Dandy, Adjunct Professor, Neurological Surgery, Johns Hopkins University. Cloth. Price $5. Pp. 168, with 100 illustrations. New York: Oskar Piest, 1941.

X-ray Therapy of Chronic Arthritis. (Including the x-ray Diagnosis of the Disease). Preliminary report based on 100 patients treated at Quincy, Illinois. By Karl Goldhamer, M. D., Associate Roentgenologist, St. Mary's Hospital and Quincy X-ray and Radium Laboratories; Formerly Roentgenologist, University of Vienna, Honorary Member, Mississippi Valley Medical Society, etc. With a Foreword

(Continued on Page 16)

BOOKS RECEIVED

(Continued from Page 14)

by Harold Swanberg, B. S., M. D., F. A. C. P., Editor, Mississippi Valley Medical Journal and the Radiologic Review; Roentgenologist, St. Mary's Hospital and Blessing Hospital; Director, Quincy X-ray and Radium Laboratories; Past President, Illinois Radiological Society, etc. Cloth. Price $2. Pp. 131, with 24 original illustrations by the author, two roentgenograms, and four tables. Quincy, Illinois: Radiologic Review Publishing Co., 1941.

Training and Efficiency. By E. Jokl, E. H. Cluver, C. Goedvolk, and T. W. De Jongh. Cloth. Pp. 188. Johannesburg: The South African Institute for Medical Research, 1941.

Electrocardiography. Including an Atlas of Electrocardiograms. By Louis N. Katz, A. B., M. D., Director of Cardiovascular Research, Michael Reese Hospital, Chicago, Illinois; Assistant Professor of Physiology, University of Chicago, Chicago, Illinois. Illustrated with 402 Engravings, including 806 Electrocardiograms. Cloth. Pp. 580. Price $10. Philadelphia: Lea & Febiger, 1941.

Exercises in Electrocardiographic Interpretation. By Louis N. Katz, A. B., M. D., Director of Cardiovascular Research, Michael Reese Hospital, Chicago, Illinois; Assistant Professor of Physiology, University of Chicago, Chicago, Illinois. Illustrated with 128 engravings containing 189 electrocardiograms. Cloth. Pp. 222. Price $5. Philadelphia: Lea & Febiger, 1941.

Infantile Paralysis. A Symposium Delivered at Vanderbilt University, April, 1941. Cloth. Pp. 239. New York City: The National Foundation for Infantile Paralysis, Inc., 1941.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 112)

of very large numbers of persons, expressing emphatically their idea that this country should not close its eyes to the possibility of future trouble. And this is wise.

There are innumerable bromidic remarks to support this point of view, as for instance:

In time of peace prepare for war.
God helps the country with the heaviest guns.
Heaven helps the man who helps himself.
Pray to God, and keep your powder dry!

From these few quotations from the dim and distant past, it becomes evident that the idea of preparedness is not altogether new.

* * *

Fees Under the Industrial Accident Law.—A letter has been received from a distinguished member of the Society in Southern California, asking the JOURNAL to publish some facts in regard to the Industrial Accident Law, and the relation of the physician to it, and its provisions in the matter of fees. Many inquiries come in from time to time on different points directly connected with this, and therefore the following facts are set forth for your information and guidance:

The law makes it the duty of the employer to furnish medical and surgical attention to an injured employee, and therefore it further permits the employer to hire any physician or surgeon he chooses. The injured employee has nothing whatever to say in regard to what physician shall attend him. If the employer has transferred his personal risk to another by taking out insurance, the insurance company is then substituted for the employer in the matter of providing medical and surgical attention. In other words,

(Continued on Page 20)

TWENTY-FIVE YEARS AGO

(Continued from Page 18)

the insurance company says what doctor shall treat the injured employee. If an employee is injured and goes to some physician of his own volition and choosing, the employer, or the insurance company, cannot be compelled to pay that physician for anything more than the emergency treatment required by the necessities of the case. In every instance where an injured employee goes to you for professional services, you should find out from him immediately the name of his employer, and notify such employer, and also find out from the employer whether he is insured, and if so notify the insurance company and receive their authorization to treat the patient. Quite a number of complaints have come in that members, after having treated injured persons for a longer or shorter period, have been notified by the insurance company that, as the treatment was unauthorized, the company would not be responsible for the bill.

The Industrial Accident Commission has a limited jurisdiction over matters of dispute arising in connection with fees, but its jurisdiction does not in any degree extend to any case where the parties involved have not complied with the law. If you do not notify the employer or the insurance company, and get the consent of such employer or such company, you have not complied with the law, and you do not come within the jurisdiction of the Commission. . . .

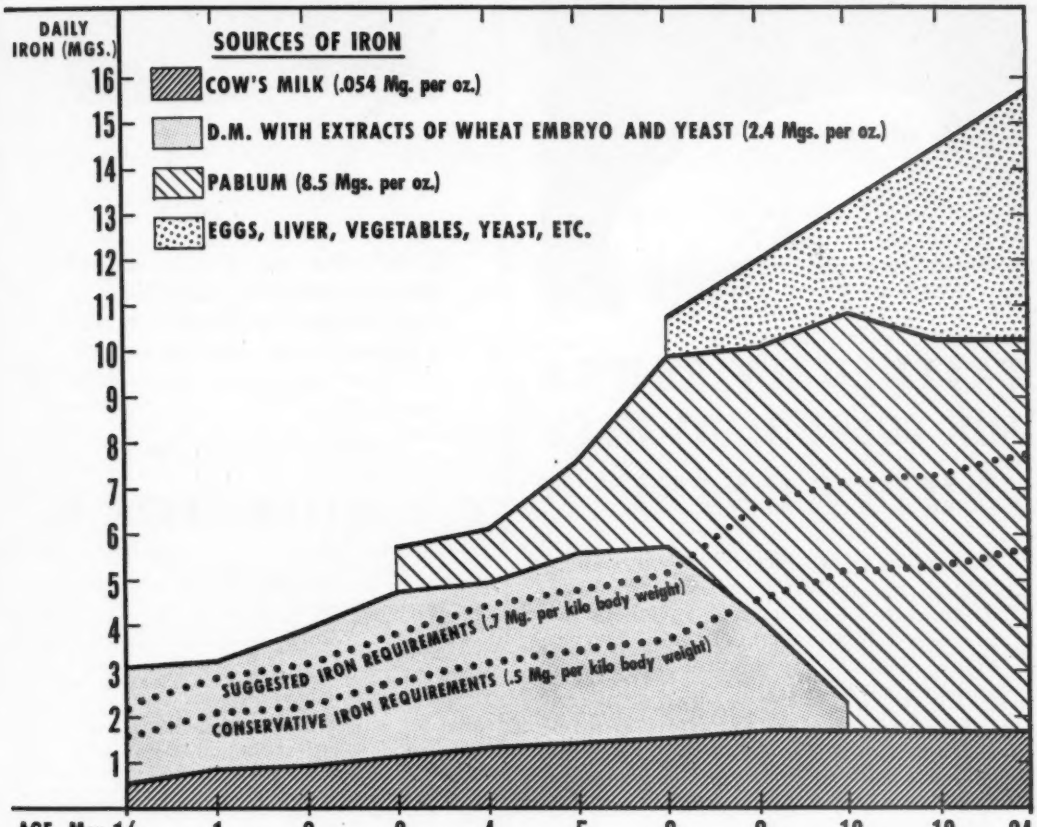
* * *

Infantile Paralysis.—The following item on the subject of poliomyelitis is issued by the State Board of Health, and is without apology given in connection with this editorial note. Elsewhere in the JOURNAL will be found an outline of an article published by the *Journal of the American Medical Association* on the same subject.

(Continued on Page 22)

IRON REQUIREMENTS

DURING THE FIRST TWO YEARS



AGE, Mos.	1/4	1	2	3	4	5	6	9	12	18	24
WEIGHT, Lbs.	7	9	10	12	14	15	16	20	22	23	25
MILK, Oz.	10	16	18	21	25	26	28	32	32	32	32
D.M. WITH EXTRACTS OF WHEAT EMBRYO AND YEAST, Oz.	1	1	1¼	1½	1½	1¾	1¾	1	¼	0	0
PABLUM, Oz.	0	0	0	⅛	¼	¼	½	¾	1	1	1

During fetal life the infant accumulates iron in its body. After birth, this supply is rapidly depleted, the hemoglobin frequently dropping to 50% by the third month, especially in prematures. Neither breast milk nor cow's milk is capable of offsetting this loss, as they are deficient in iron. An infant requires one-half milligram of iron per kilogram of body weight. This chart shows that when the carbohydrate and cereal supplements contain iron, a sizeable margin of safety can be maintained, not only during the important first six months, but throughout the first two years of life.

The excess iron thus supplied over iron requirements averages close to 75%, and is needed because some iron is unutilized — a large amount in certain cases. In rapidly growing, or poorly nourished infants, and in the presence of infection, the need for iron may be greater than the chart shows; in some cases, periodic hemoglobin determinations may show the need for iron therapy.

MEAD JOHNSON & COMPANY, Evansville, Ind., U.S.A.

TWENTY-FIVE YEARS AGO

(Continued from Page 20)

Every effort to prevent the introduction of infantile paralysis into California is being exerted by the California State Board of Health. In order to learn if any cases or contacts are being brought into the State from the East, where the disease is now epidemic, inspectors of all transcontinental passenger trains have been stationed at points along the border lines where the railroads enter California. Without the coöperation of citizens, however, this procedure is of small importance. . . .

From an Original Article on "Congenital Pyloric Stenosis," by Alanson Weeks, M. D., San Francisco.—He who would treat a case of true so-called congenital pyloric stenosis medically should first be made to cut the tumor found in such a condition with a fairly sharp scalpel. The hypertrophy of the tissue found at the pylorus in these babies is so thick, and so dense, that relaxation with other than mechanical means should at last be believed to be out of the question.

The idea which should really be impressed upon all of us who treat babies is to make a correct diagnosis, and make it early. Observe the babies carefully when they start to vomit. If this becomes projectile in character, definite peristaltic waves can be seen, with much distension of the stomach and rapid loss of weight, so that your baby in a very short time looks dried-out, with a tumor which can be felt at the pylorus, and the child is markedly constipated —as a rule such a child needs operative help. An x-ray picture of such a baby, with bismuth, is entirely unnecessary for diagnosis, but shows very beautifully the dilated

(Continued in Back Advertising Section, Page 26)